MHC-GR3/RX30

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
MHC-RX30
E Model
Australian Model
MHC-GR3

- MHC-GR3/RX30 is composed of following models.
  As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENTS MODEL NAME FOR MHC-GR3/RX30

	MHC-GR3		MHC-RX30	
	E, MX, AR	AUS, SAF	US,CND,AEP,UK,G	EE
COMPACT DISC DECK RECEIVER SYSTEM	HCD-GR3		HCD-RX30	
SPEAKER SYSTEM	SS-L50	SS-L50H	SS-L50	SS-L50H

- Abbreviation
  CND : Canadian model
  G : German model
  EE : East European model
  MX : Mexican model
  AR : Argentine model
  SAF : South African model
  AUS : Australian model

SPECIFICATIONS

General

Power requirements

US,Canadian,Mexican models:120V AC, 60 Hz
AEP,UK,German,East European models:
220 - 230V AC, 50/60 Hz
South Africa model:220 - 240V AC, 50/60 Hz
Australian model:240V AC, 50/60 Hz
Other models:110 - 120V or 220 - 240V AC, 50/60 Hz. Adjustable with the voltage selector

Power consumption

US model.105 W
Canadian model:115 W
Other models:95 W

Supplied accessories

AM loop antenna (1)
FM lead antenna (1)
Remote RM-SD25 (1)
Sony SUM-3 (NS) batteries (2)

Design and specifications are subject to change without notice.

PARTS LIST

Part No.	Description	Remark
	ACCESSORIES & PACKING MATERIALS	
	**********	
1-501-374-11	ANTENNA, LOOP	
1-501-659-11	ANTENNA (FM) (EXCEPT AEP, UK, G, EE)	
1-501-807-11	ANTENNA (FM) (AEP, UK, G, EE)	
3-859-015-11	MANUAL, INSTRUCTION (ENGLISH) (US, CND)	
3-859-015-21	MANUAL, INSTRUCTION (FRENCH) (CND)	
3-859-017-11	MANUAL, INSTRUCTION (ENGLISH) (UK)	
3-859-017-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)	
3-859-017-31	MANUAL, INSTRUCTION (GERMAN) (G)	
3-859-017-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN) (AEP)	
3-859-017-51	MANUAL, INSTRUCTION (DANISH, FINNISH, SWEDISH) (AEP)	
3-859-017-61	MANUAL, INSTRUCTION (ENGLISH, POLISH, RUSSIAN) (EE)	
3-859-826-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH) (E, MX, AR, AUS, SAF)	
4-979-371-01	COVER, BATTERY (for RM-SD25)	
8-917-538-90	REMOTE COMMANDER (RM-SD25)	

MINI Hi-Fi COMPONENT SYSTEM

SONY®

MICROFILM

9-960-877-11

Sony Corporation
Home A&V Products Company

97B0494-1
Printed in Japan ©1997.2
Published by Service and Safety Engineering Dept. (Shibaura)

HCD-GR3/RX30

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
HCD-RX30
E Model
Australian Model
HCD-GR3

HCD-GR3/RX30 is the tuner, deck, CD and amplifier section in MHC-GR3/RX30.

Photo: HCD-RX30

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* Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", the double-D symbol ◻◻ are "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	HCD-H991AV
	CD Mechanism Type	CDM38-5BD19FK
	Base Unit Type	BU-5BD19
	Optical Pick-up Type	KSS-213B/K-N
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-D270/G3100/N255
	Tape Transport Mechanism Type	TCM-YSW47C24

SPECIFICATIONS

For the U.S. model
AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 6 ohm loads, both channels driven, from 70 – 20 kHz; rated 50 watts per channel minimum RMS power, with no more than 0.9 % total harmonic distortion.

CD player section

System: Compact disc and digital audio system
Laser: Semiconductor laser
Laser output: Max. 44.6µ W*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength: 780 – 790 nm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range: 87.5 – 108.0 MHz
Antenna: FM lead antenna
Antenna terminals: 75 ohm unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

Tuning range
US, Canadian models:
AM: 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
530 – 1,710 kHz (with the tuning interval set at 10 kHz)
German models:
AM: 531 – 1,602 kHz (with the interval set at 9 kHz)
AEP, UK, East European models:
MW: 531 – 1,602 kHz (with the interval set at 9 kHz)
LW: 153 – 279 kHz (with the interval set at 3 kHz)
Other models:
AM: 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
530 – 1,710 kHz (with the tuning interval set at 10 kHz)
Antenna: AM loop antenna, External antenna terminals
Intermediate frequency: 450 kHz

Amplifier section

US, Canadian models:
Continuous RMS power output: 60W+60W (6 ohms at 1 kHz, 5% THD)

— Continued on next page —

COMPACT DISC DECK RECEIVER

MICROFILM

SONY®

AEP, UK, German, East European models:
DIN power output
40W+40W (6 ohms at 1 kHz, DIN)
Continuous RMS power output
50W+50W (6 ohms at 1 kHz, 10% THD)
Music power output
85W+85W (6 ohms at 1 kHz, 10% THD)
Other models:
Peak music power output
800W
Continuous RMS power output
50W+50W (6 ohms at 1 kHz, 10% THD)
Inputs
VIDEO (phono jacks):
voltage 250 mV, impedance 47 kilohms
Outputs
PHONES (stereo phone jack):
accepts headphones of 8 ohms or more.
SPEAKER: accepts impedance of 6 to 16 ohms.

SUPER WOOFER:
Voltage 1V, impedance 1 kilo ohms.

Tape player section

Recording system
4-track 2-channel stereo
Frequency response
(DOLBY NR OFF)
40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette
40 – 14,000 Hz (±3 dB), using Sony TYPE II cassette
Wow and flutter
±0.15% W. Peak (IEC)
0.1% W. RMS (NAB)
±0.2% W. Peak (DIN)

General

Power requirements
US, Canadian, Mexican models:
120V AC, 60 Hz
AEP, UK, German, East European models:
220 – 230V AC, 50/60 Hz
South Africa model:
220 – 240V AC, 50/60 Hz
Australian model:
240V AC, 50/60 Hz
Other models:
110 – 120V or 220 – 240V AC, 50/60 Hz
Adjustable with the voltage selector
Power consumption
US model: 105W
Canadian model: 115 W
Other models: 95W
Dimensions Approx. 280 x 330 x 360 mm (11 1/8 x 13 x 14 1/4 in) (w/h/d) incl. projecting parts and controls
Mass Approx. 7 kg (15 lb 7 oz)

Design and specifications are subject to change without notice.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

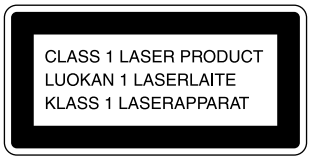
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

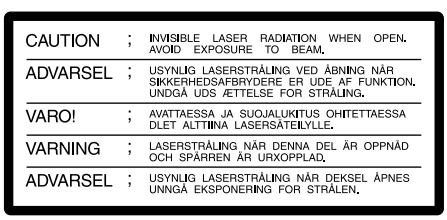
Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

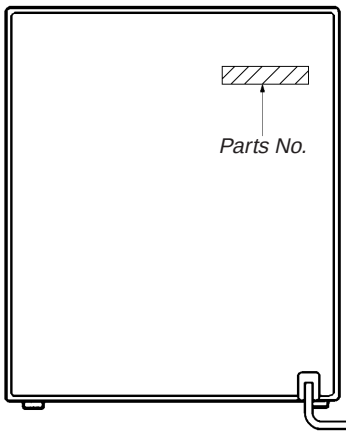


This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.


CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARO! ; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE.
VARNING ; LASERSTRÅLING NÄR DENNA DEL ÄR OPPNÄD OCH SPÄRREN ÄR URXOPPLAD.
ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

MODEL IDENTIFICATION — BACK PANEL —



- Abbreviation
  CND : Canadian model
  G : German model
  AUS : Australian model
  AR : Argentine model
  SAF : South African model
  MX : Mexican model
  EE : East European model

MODEL	PARTS No.
GR3 : E model	4-988-804-0 ☐
GR3 : AUS model	4-988-804-1 ☐
GR3 : MX model	4-988-804-2 ☐
GR3 : AR model	4-988-804-3 ☐
GR3 : SAF model	4-988-804-4 ☐
RX30 : US model	4-988-810-0 ☐
RX30 : CND model	4-988-810-1 ☐
RX30 : AEP model	4-988-811-0 ☐
RX30 : G model	4-988-811-1 ☐
RX30 : UK model	4-988-811-2 ☐
RX30 : EE model	4-988-811-3 ☐

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

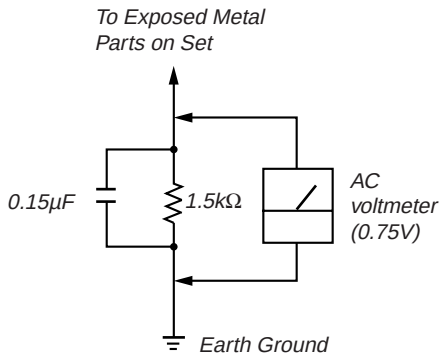


Fig. A. Using an AC voltmeter to check AC leakage.

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SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

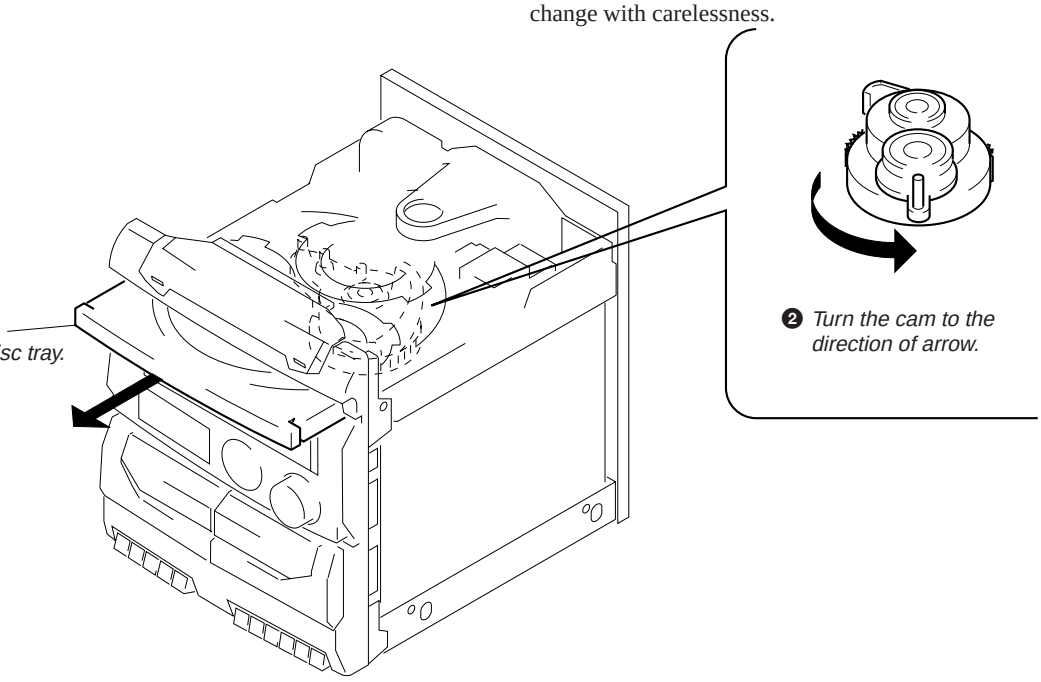
SECTION 1
SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

❶ *Remove the Case.*



❷ *Turn the cam to the direction of arrow.*

❸ *Pull-out the disc tray.*

FL Display Tube, LED All Lit and Key Check mode

When the TUNER/BAND , DISPLAY , and MENU 2 buttons are pressed simultaneously, the FL display tube and LEDs will all light up. Press any button to enter the key check mode.
When the key check mode is entered, the FL display tube displays "KEY 1 0 0". Each time a button is pressed, the counter increases in the following order, KEY 2 → KEY 3 → KEY 4.
If buttons already pressed once are pressed again, the counter will not increase. When the VOLUME knob is rotated in the + direction, the count increases in the following order.
0 0 → 0 1 → 0 2.
When rotated in the – direction, it decreases in the following order.
0 0 → 0 9 → 0 8.
To exit form the test mode, press the TUNER/BAND , DISPLAY , MENU 2 buttons simultaneously again.

How to reset all

Pressing the TUNER/BAND , DISPLAY and MENU 3 buttons simultaneously, all are rest and returned to as when the was shipped.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output three times.

Switching the channel step 9 KHz/10 KHz

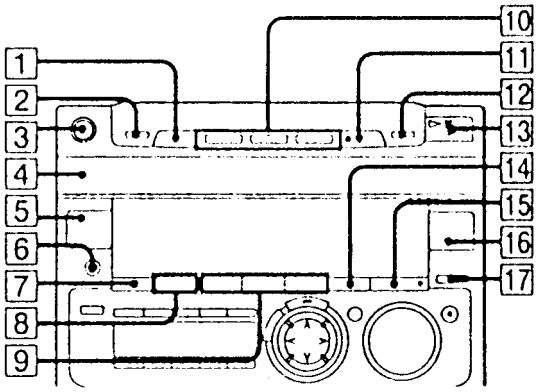
Press ENTER/NEXT button and POWER button simultaneously to switch the AM channel step 9 KHz and 10 KHz. Be sure not to change with carelessness.

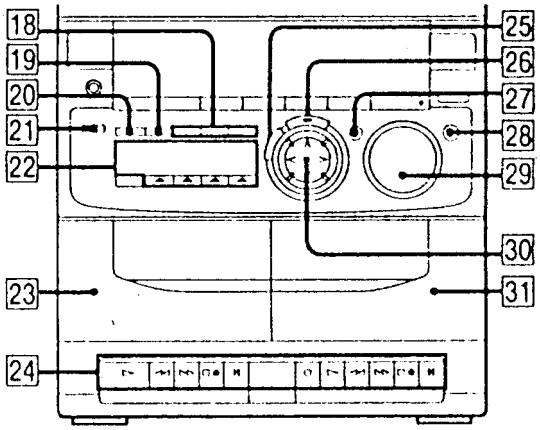
This section is extracted from instruction manual.

Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

Front Panel





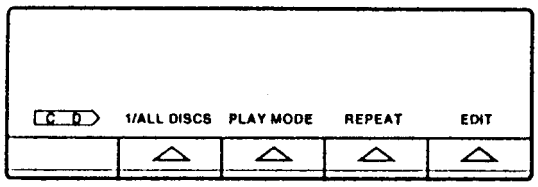
1 DISC SKIP EX-CHANGE button* (7)
2 LOOP button (11)
3 POWER button (7)
4 Disc tray (7)
5 TIMER button (21)
6 PHONES jack (19)
7 DISPLAY button (5)
8 SURROUND button (19)
9 MENU 1 – 3 buttons (19)
10 DISC 1 – 3 buttons* (7)
11 ⏏ OPEN/CLOSE button (7)
12 □ (stop) button (7)
13 ▷II (play/pause) button* (7)
14 P FILE button (20)
15 EFFECT ON/OFF button* (19)
16 TUNER/BAND button (12)
17 FUNCTION button (7)
18 CLIP A – C buttons (10)
19 CLIP ERASE button (10)
20 CLIP PLAY button (10)
21 DOLBY NR button (14)
22 MULTI FUNCTION CONTROL buttons (27)
23 Deck A (14)
24 Tape operating buttons
- ▷ (play) button (14)
- ◀◀ (rewind) button (14)
- ▶▶ (fast forward) button (14)
- ■⏏ (stop/eject) button (14)
- II (pause) button (14)
- ● (rec) button (15) (for deck B only)

25 EQ EDIT button (20)
26 ENTER/NEXT button* (9)
27 DBFB button (19)
28 GROOVE button* (19)
29 VOLUME button (19)
30 MULTI CONTROLLER (7)
31 Deck B (14)

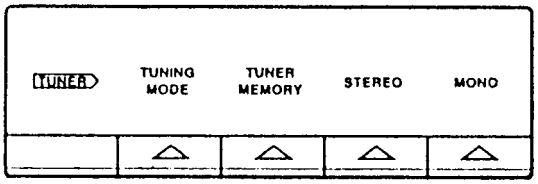
MULTI FUNCTION CONTROL buttons

The button you can operate the CD player, tuner and the tape player light up.

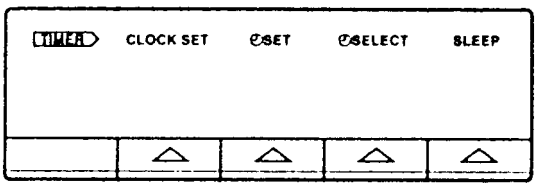
CD player



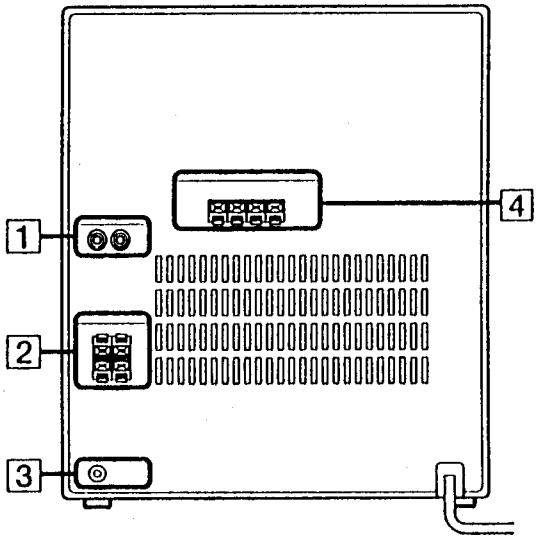
Tuner



Timer



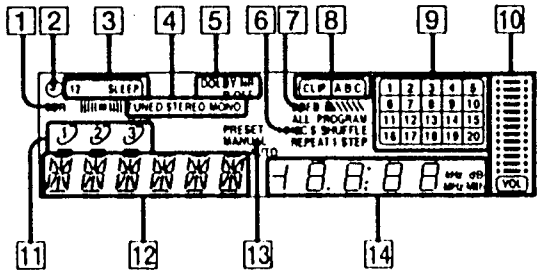
Rear panel



1 VIDEO in jacks (22)
2 SPEAKER jacks (4)
3 SUPER WOOFER jack (23)
(GR3/RX30 : US, Canadian model)

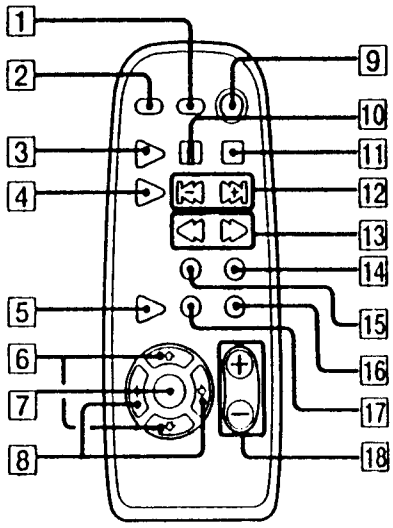
4 ANTENNA terminals (4)

Display Window



1 SUR indicator (19)
2 ⏲ indicator (20)
3 Timer indicators (21)
4 Tuning indicators (12)
5 DOLBY NR indicator (14)
6 CD playback indicators (8)
7 DBFB indicator (19)
8 CLIP indicators (10)
9 Music calendar (7)
10 VOLUME indicators
11 Disc tray indicator
12 Multi display
13 Tuner indicators (12)
14 Radio frequency/playing time/sound frequency level indications

Remote



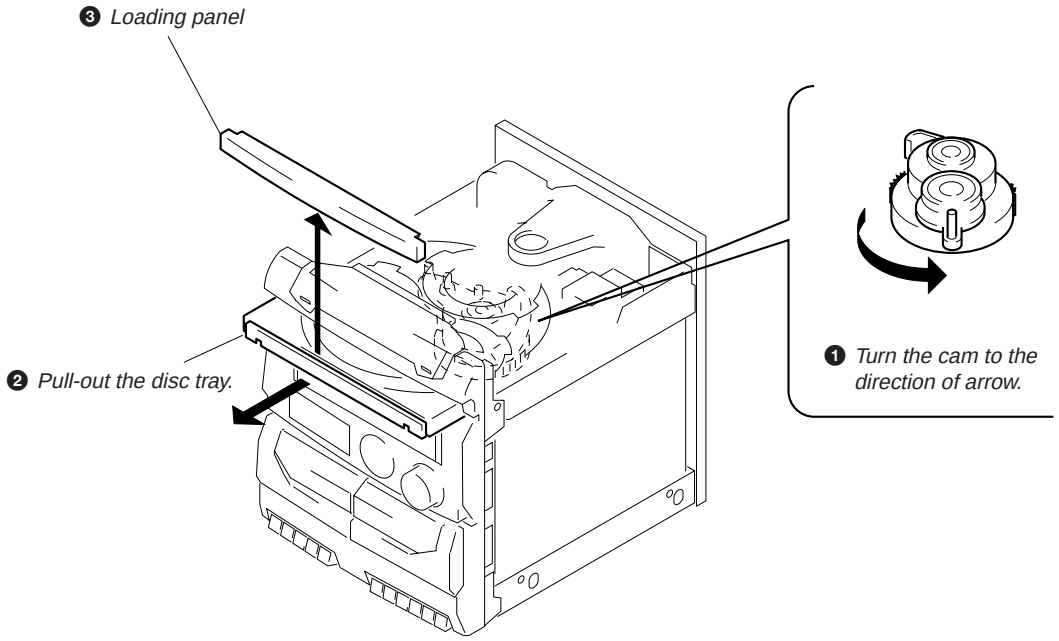
1 SLEEP button (21)
2 LOOP button (11)
3 CD ▷ button (7)
4 TUNER/BAND button (12)
5 FUNCTION button (7)
6 ◁◁ / ▷▷ buttons (19, 20)
7 MUSIC MENU ON/OFF button (19)
8 ∧ / ∨ buttons (19, 20)
9 POWER switch (7)
10 ⏸ (pause) button (7)
11 ■ (stop) button (7)
12 ⏮ / ⏭ AMS* buttons (7)
13 ◁ / ▷ (rewind/fast forward)buttons (7)
14 EDIT button (15)
15 CHECK button (9)
16 DISC SKIP button
17 CLEAR button (9)
18 VOL (+/–) button (19)

* AMS=Auto Music Sensor

SECTION 3
DISASSEMBLY

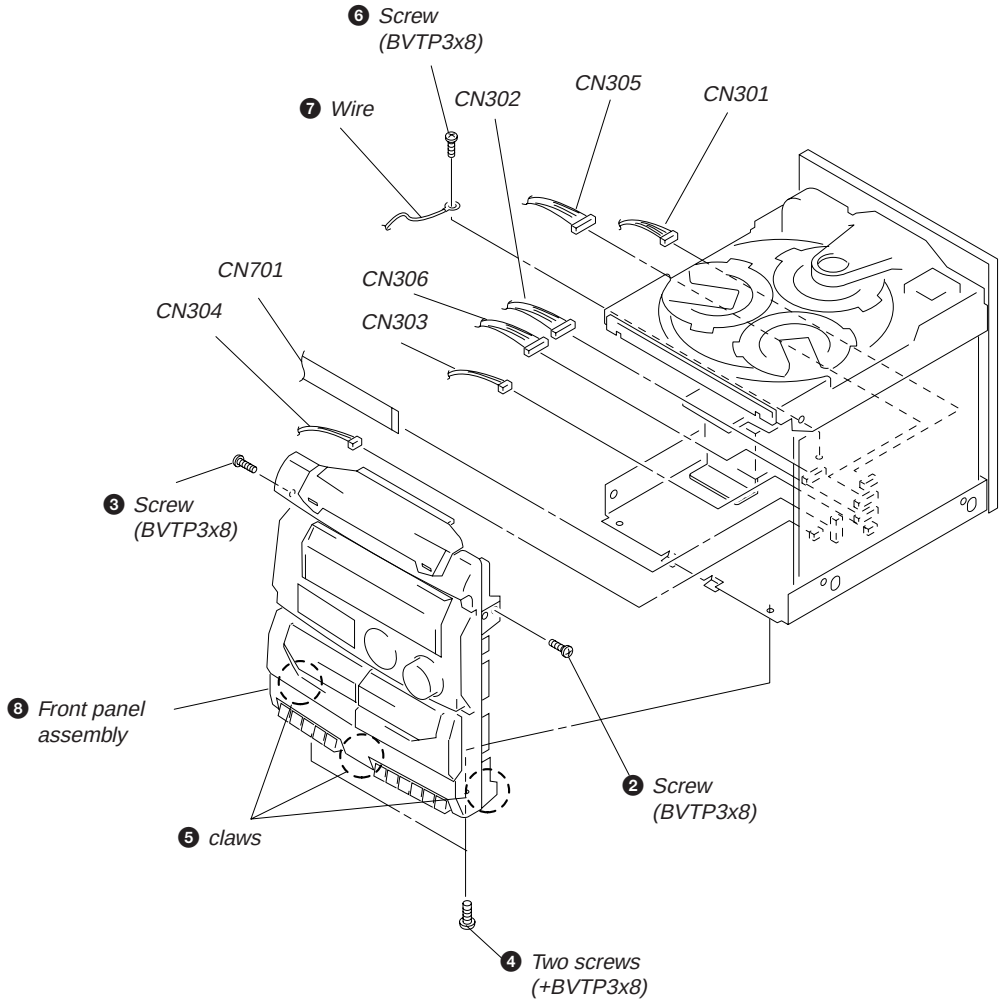
Note: Follow the disassembly procedure in the numerical order given.

3-1. LOADING PANEL

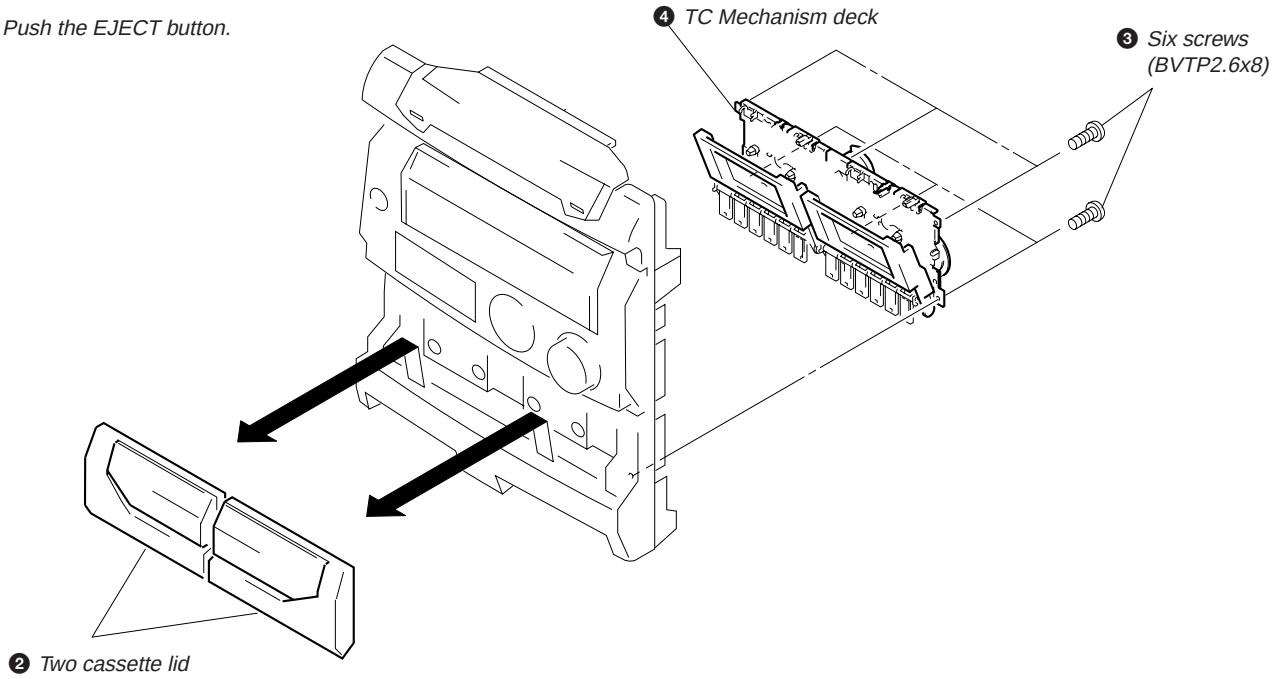


3-2. FRONT PANEL

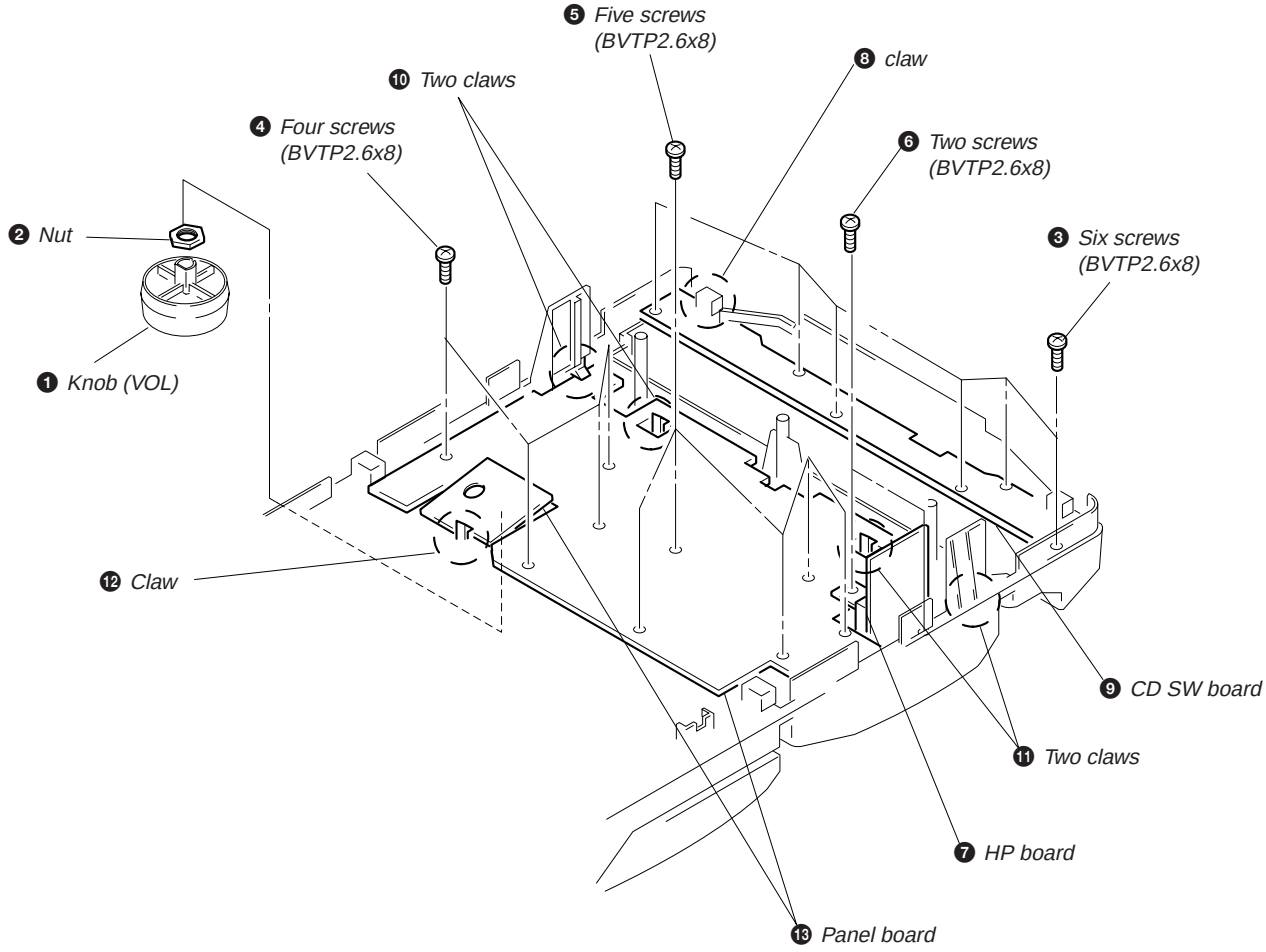
❶ *Remove the connectors.*
(Main board: CN301, CN302, CN303, CN304, CN305, CN306, CN701)



3-3. TC MECHANISM DECK

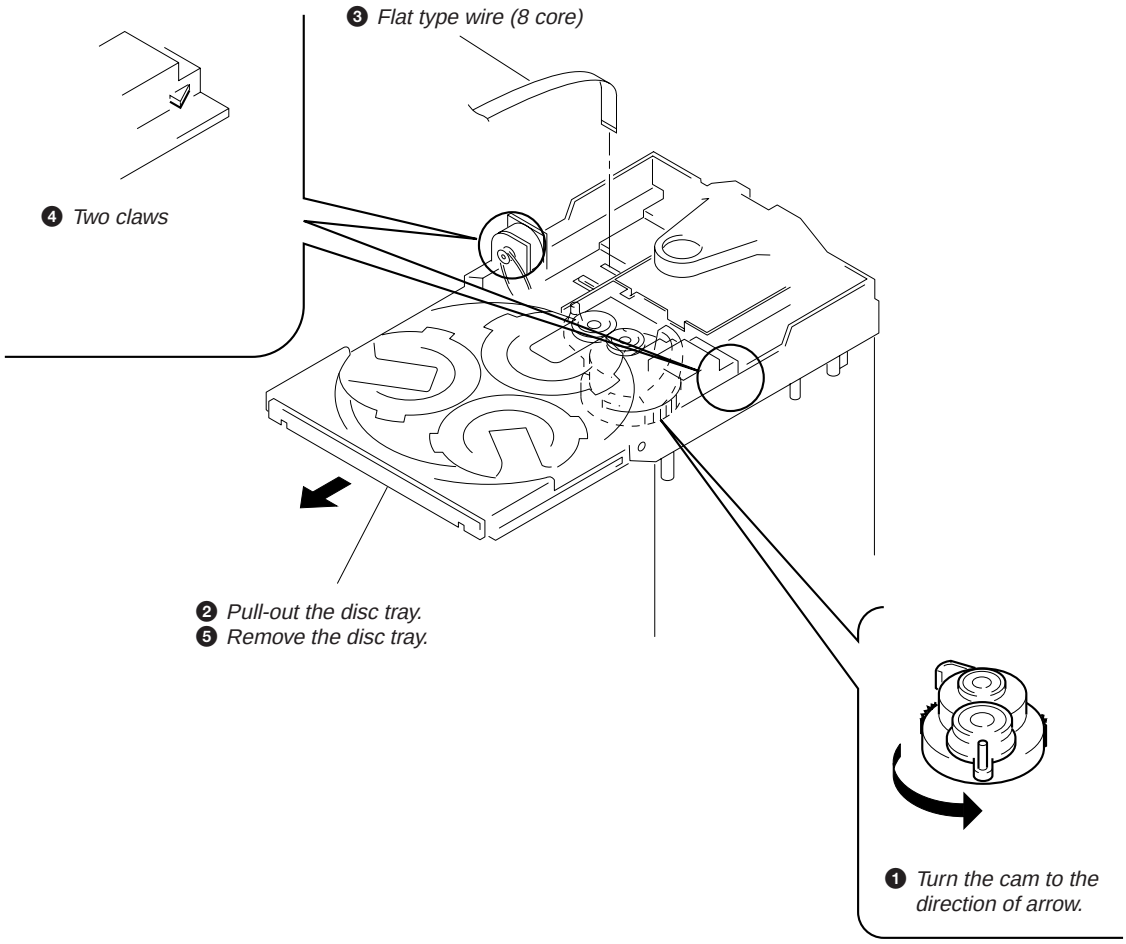


3-4. CD SW BOARD AND PANEL BOARD

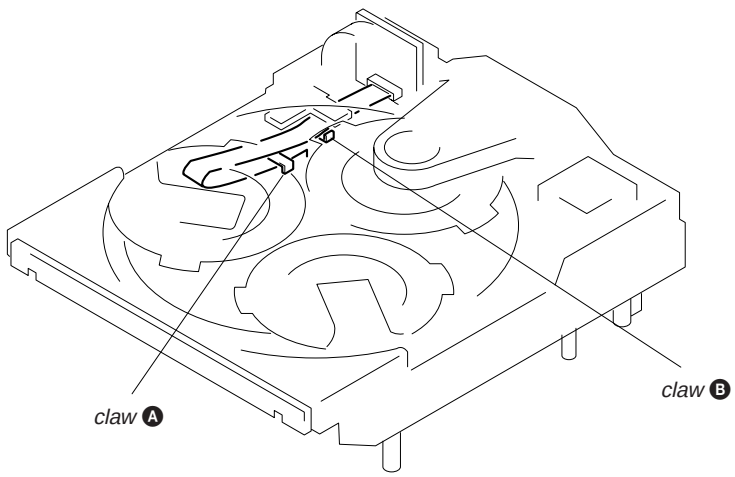


3-5. DISC TRAY

(Perform after removing the front panel.)



Note: *When installing the Disc tray, pull around the flat type wire to pass through the claw Ⓐ and claw Ⓑ, as shown in the figure.*



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab :
   record/playback heads — pinch rollers
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30 to 80g • cm (0.41 – 1.11 oz • inch)
FWD back tension	CQ-102C	1.5 to 5.5g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	55 to 130g • cm (0.76 – 1.80 oz • inch)
FWD tension	CQ-403A	100g or more (3.53 oz or more)

SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION | **0 dB=0.775V**

1. Demagnetize the record/playback head with a head damagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-ch.
7. Switches and controls should be set as follows unless otherwise specified.

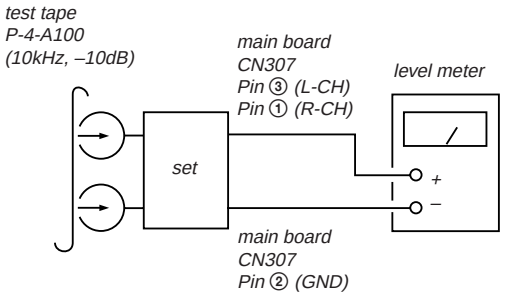
Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

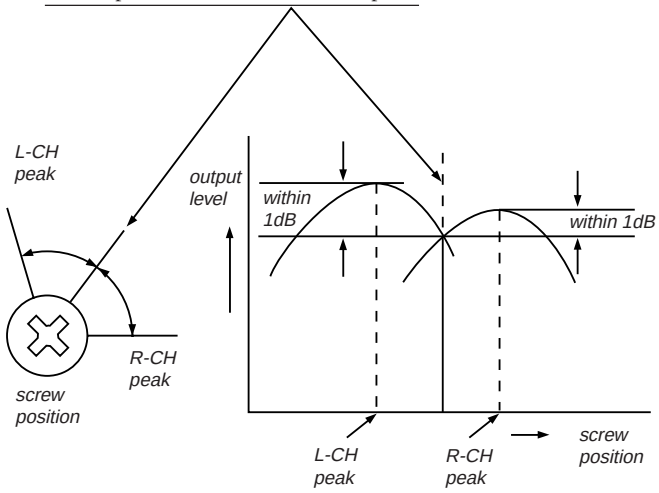
Note : Perform this adjustments for both decks.

Procedure :

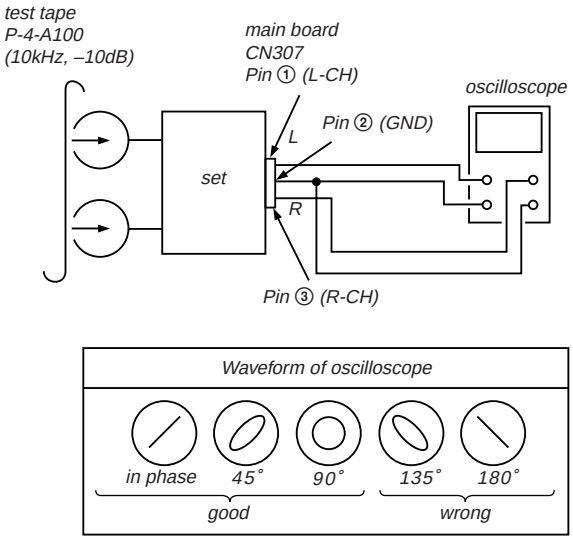
1. Mode : Playback



2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.

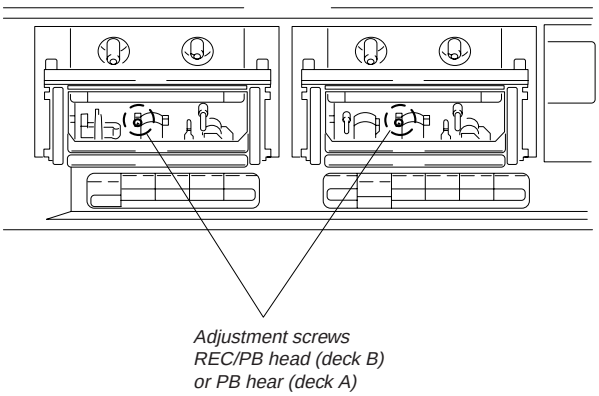


3. Mode : Playback



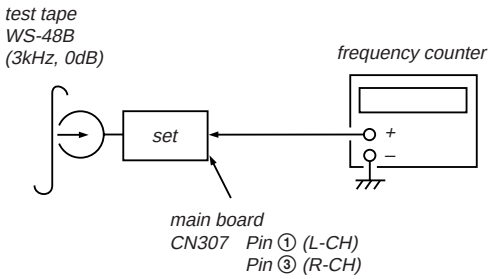
4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location :



Tape Speed Adjustment (Deck A, Deck B)

Procedure :
Mode : Playback

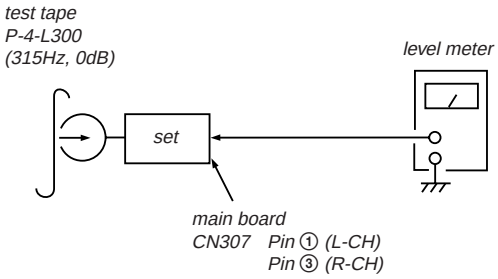


1. Insert the WS-48B into the deck B, and playback.
2. Adjust the RV380 so that the frequency counter reading becomes 3000 ± 10 Hz.
3. Stop the deck B. Insert the WS-48B into the deck A to playback. Be sure to check that the difference of the frequency compared with the deck B becomes within +2% and –0.5%.
4. Insert the CS-123 (blank tape) into the deck A and insert the WS-48B into the deck B, then playback them simultaneously. Be sure to check that the deck B's frequency counter reading becomes 3000 ± 50 Hz.

Adjustment Location : MAIN board

Playback Level Adjustment (Deck A, Deck B)

Procedure :
Mode : Playback



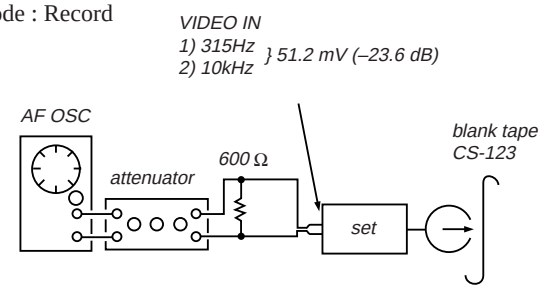
Deck A is RV301 (L-CH) and RV401 (R-CH),
Deck B is RV302 (L-CH) and RV402 (R-CH)
so that adjustment within the following adjustment level.

Adjustment level :
CN307 playback level: 301.5 to 338.3 mV (–8.2 to –7.2 dB)
level difference between the channels: within ±0.5 dB
Adjustment Location : MAIN board

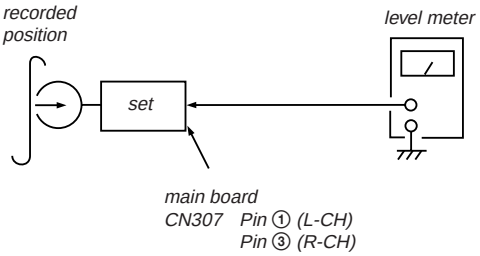
Record Bias Adjustment (Deck B)

Procedure :

1. Mode : Record



2. Mode : Playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.
If these levels do not adjustment level, adjustment the RV304 (L-CH) and RV404 (R-CH) on the main board to repeat steps 1 and 2.

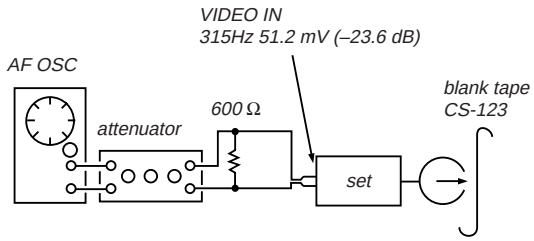
Adjustment level : Playback output of 10kHz level diffrence against 315Hz reference should be ±0.5 dB.

Adjustment Location : MAIN board

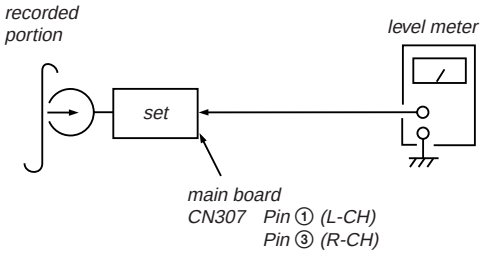
Record Level Adjustment (Deck B)

Procedure :

1. Mode: Record



2. Mode: Playback

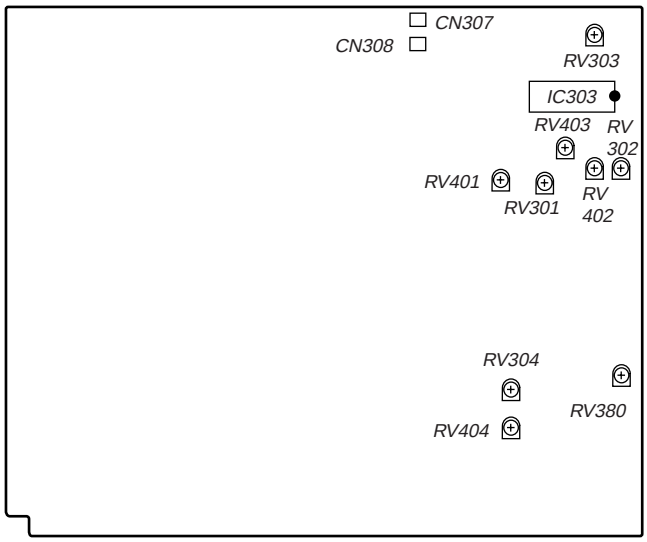


Confirm playback the signal recorded in step 1 become adjustment level as follows.
If these levels do not adjustment level, adjustment the RV303 (L-CH) and RV403 (R-CH) on the main board to repeat steps 1 and 2.

Adjustment level :
CN307 playback level : 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location

[MAIN BOARD] (Component Side)



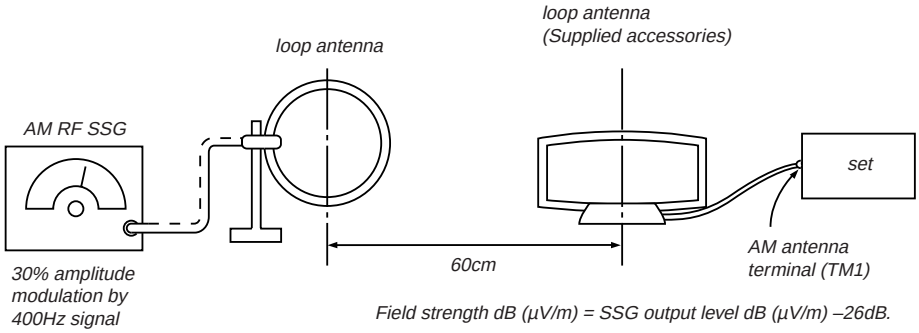
TUNER SECTION | 0dB=1µV

Note 1: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.
Note 2: No adjustment is needed due to a tuner pack for except AEP, UK, German, East European models.

AM Tuned Level Adjustment

Note: FM Tuned Level adjustment should be performed after this AM Tuned Level Adjustment.

Setting:
Band: AM or MW



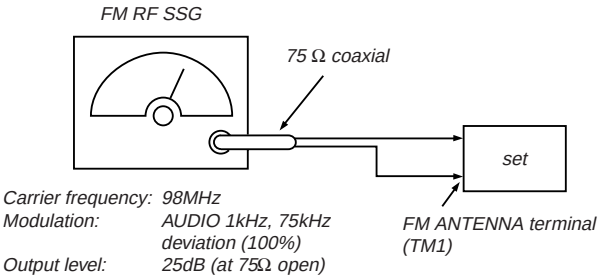
Procedure:
1. Set the output of SSG so that the input level of the set becomes 55 dB.
2. Tune the set to 999 kHz or 1,050 kHz.
3. Adjust RV41 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location: TCB board

FM Tuned Level Adjustment

Note: This adjustment should be performed after the AM Tuned Level Adjustment.

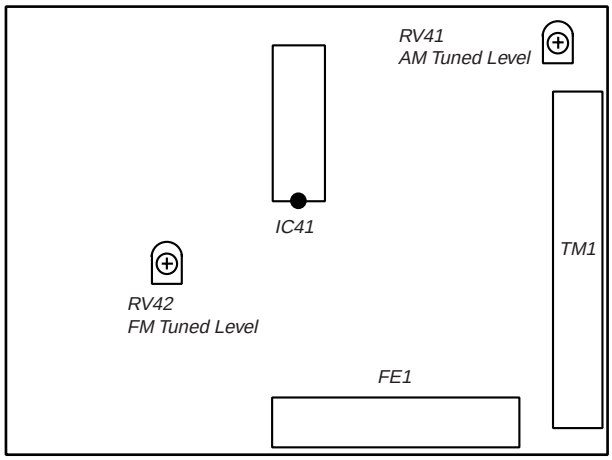
Setting:
Band: FM



Procedure:
1. Supply a 25 dB 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV42 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location

[TCB BOARD] (Component Side)

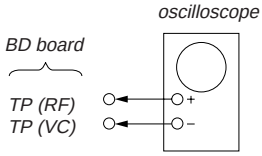


CD SECTION

Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

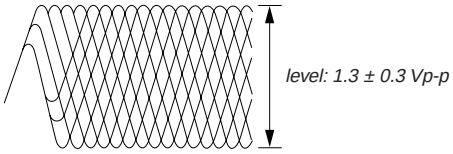
Focus Bias Adjustment



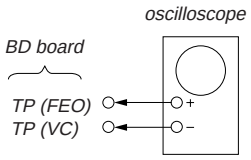
Procedure:

1. Connect oscilloscope to test point TP (RF).
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear.
   (Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

• RF signal
VOLT/DIV: 200 mV
TIME/DIV: 500 nS



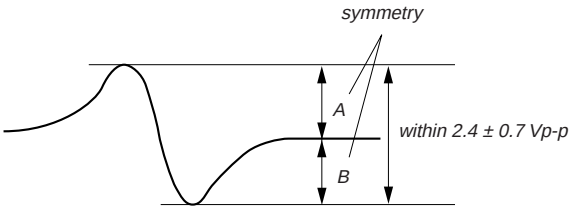
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and Ground by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.4 ± 0.7 Vp-p.

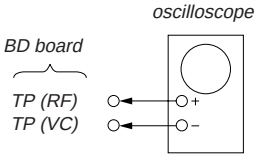
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note: • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

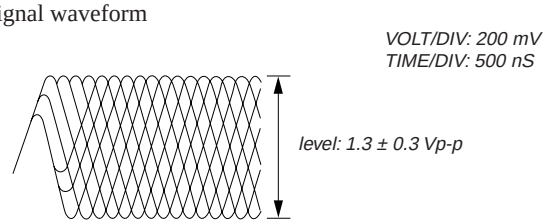


Procedure :

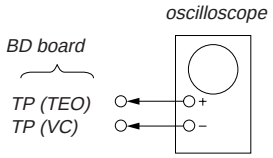
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note: Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



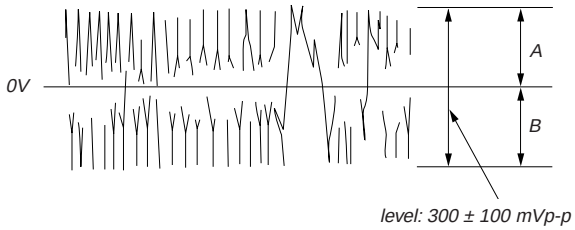
E-F Balance Check



Procedure:

1. Connect test point TP703 (ADJ2) on Main board to Ground with a lead wire.
2. Connect oscilloscpe to test point TP (TEO).
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

Traverse waveform



Specified level: • $\frac{A - B}{2 (A + B)}$ x 100 = less than ± 7%

• A + B = 300 ± 100 mVp-p

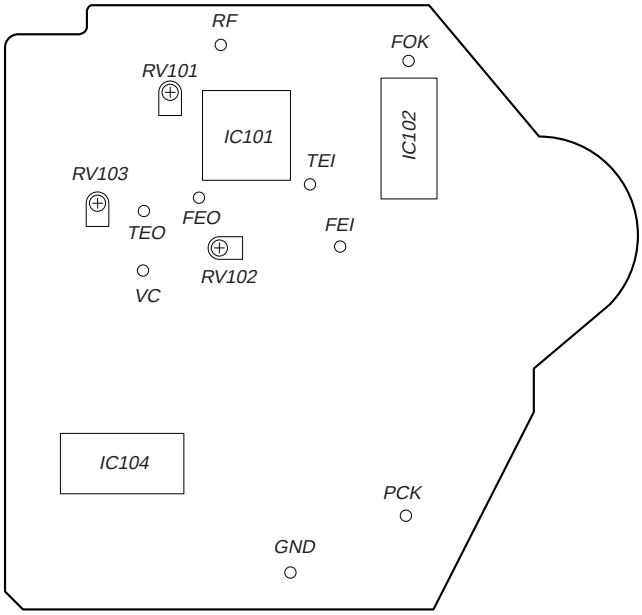
6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

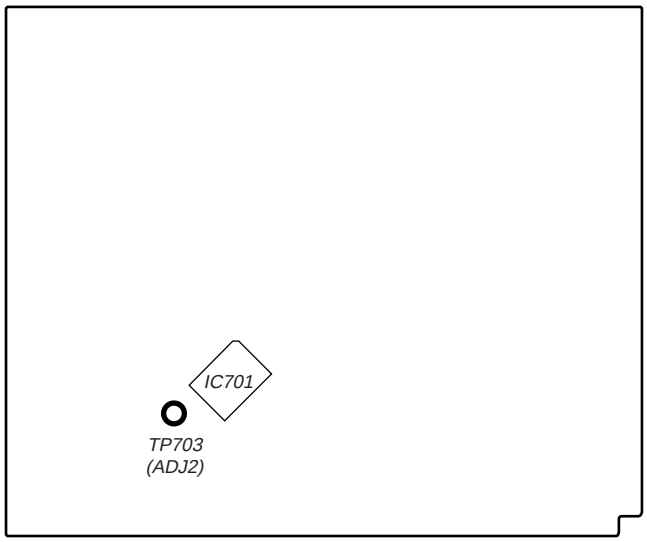
This gain has a margin, so even if it is slightly off.
There is no problem.
Therfore, do not perform this adjustment.
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location:

[BD BOARD] — Component Side —

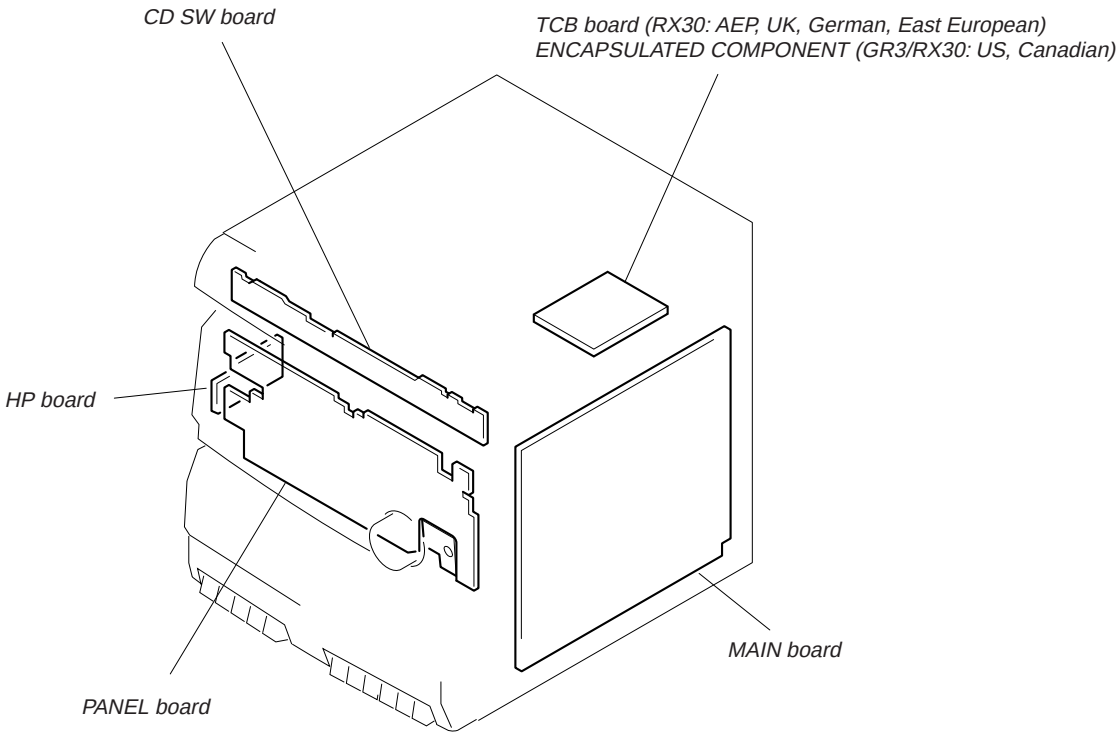


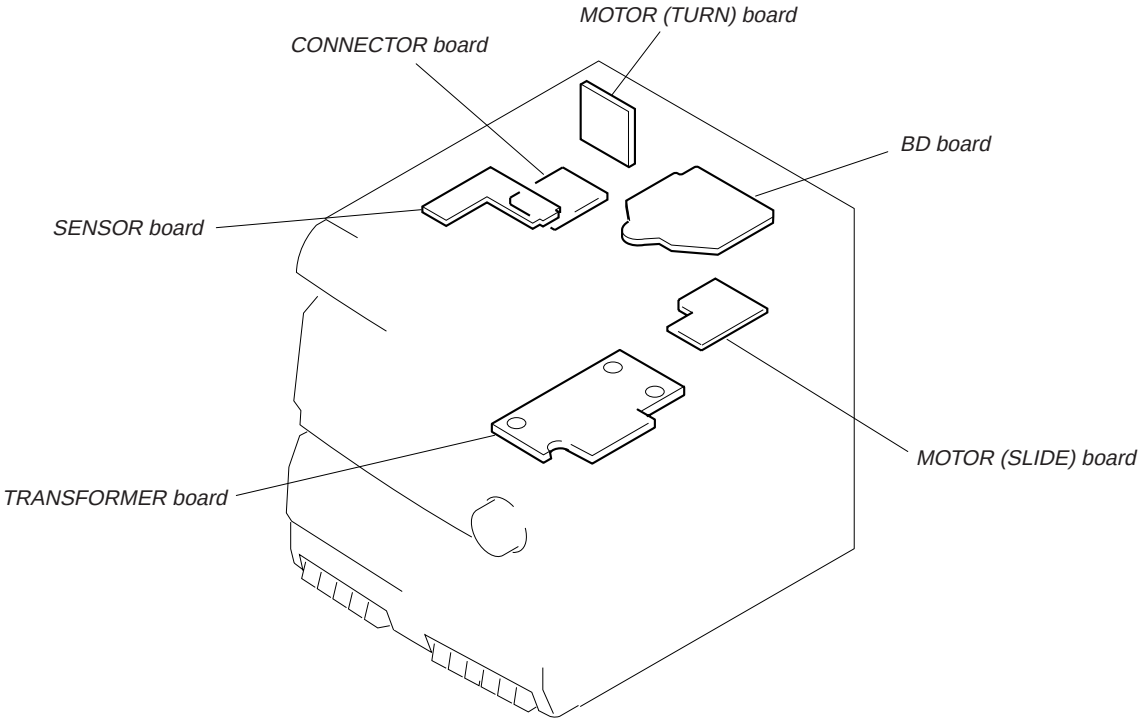
[MAIN BOARD] — Conductor Side —



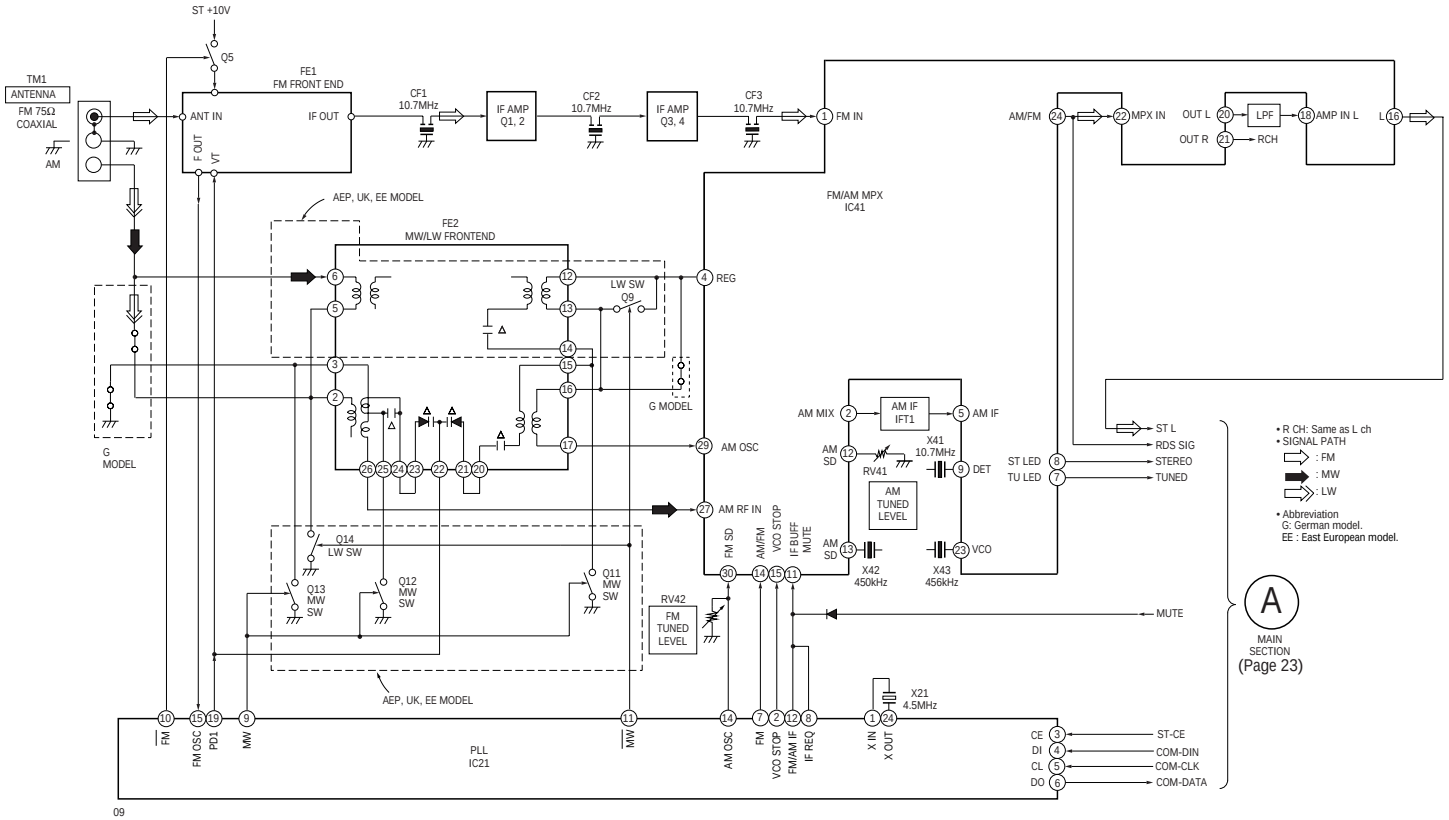
SECTION 6
DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION

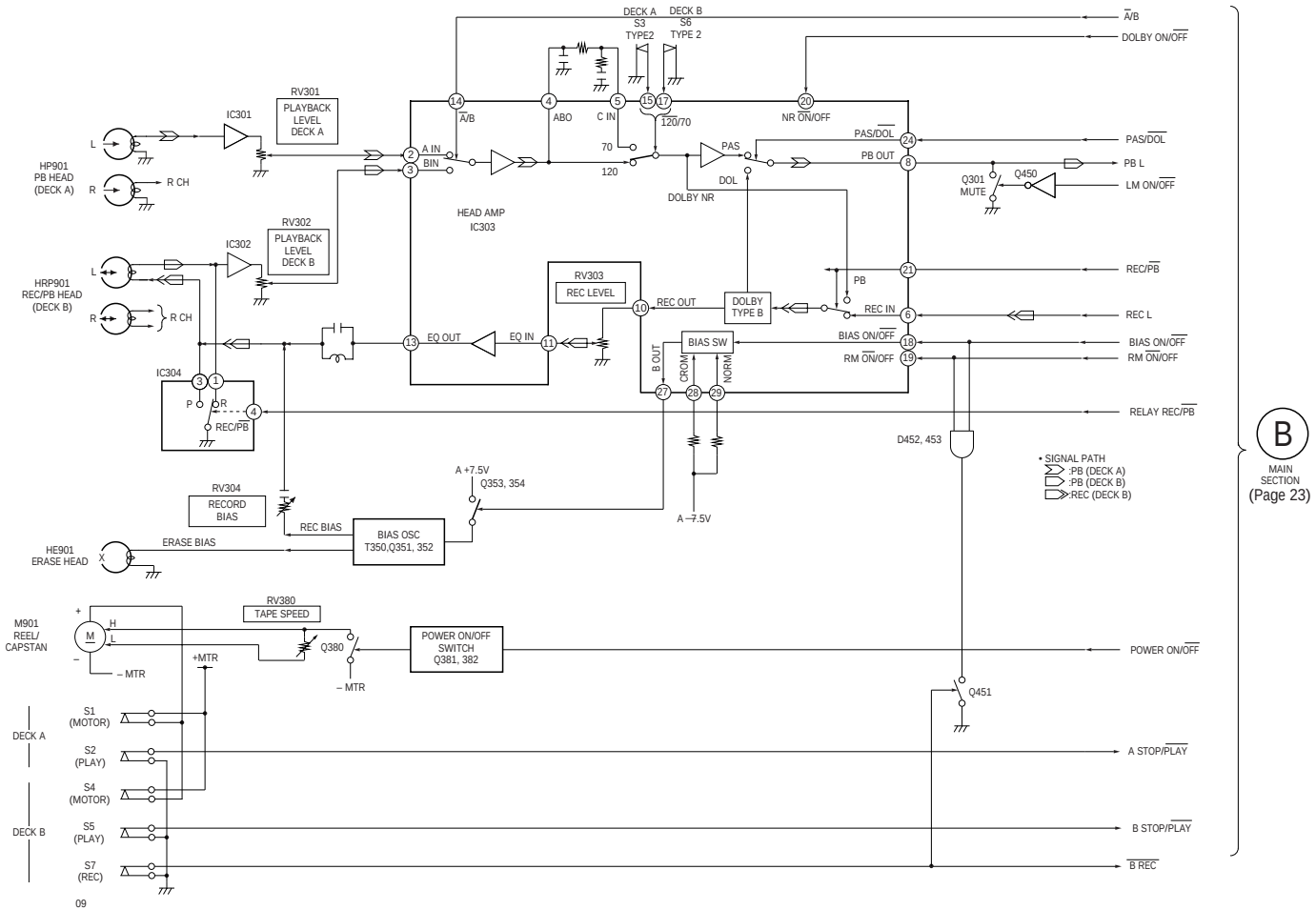




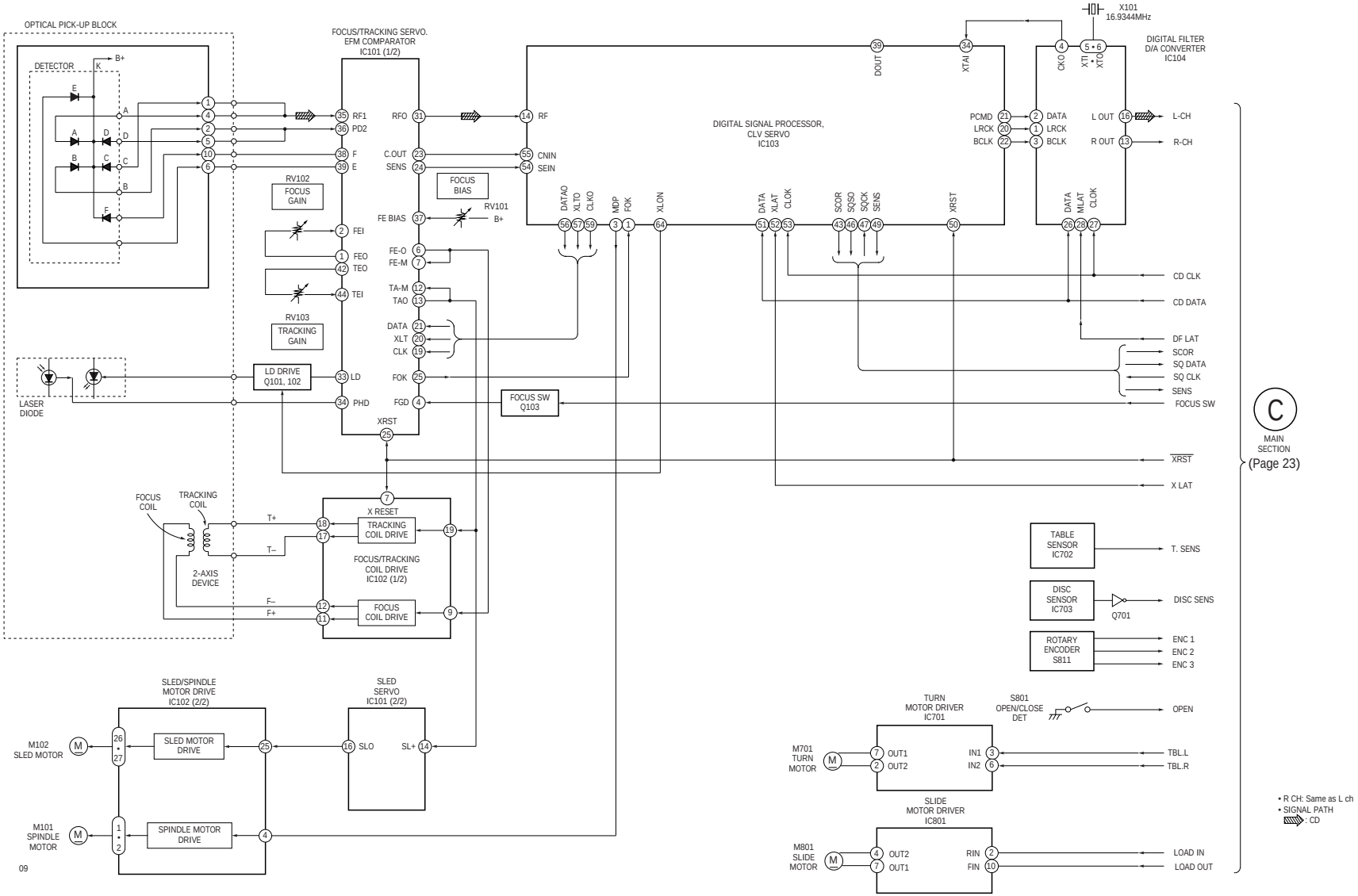
6-2. BLOCK DIAGRAMS
— TUNER SECTION — (RX30: AEP, UK, G, EE MODEL)



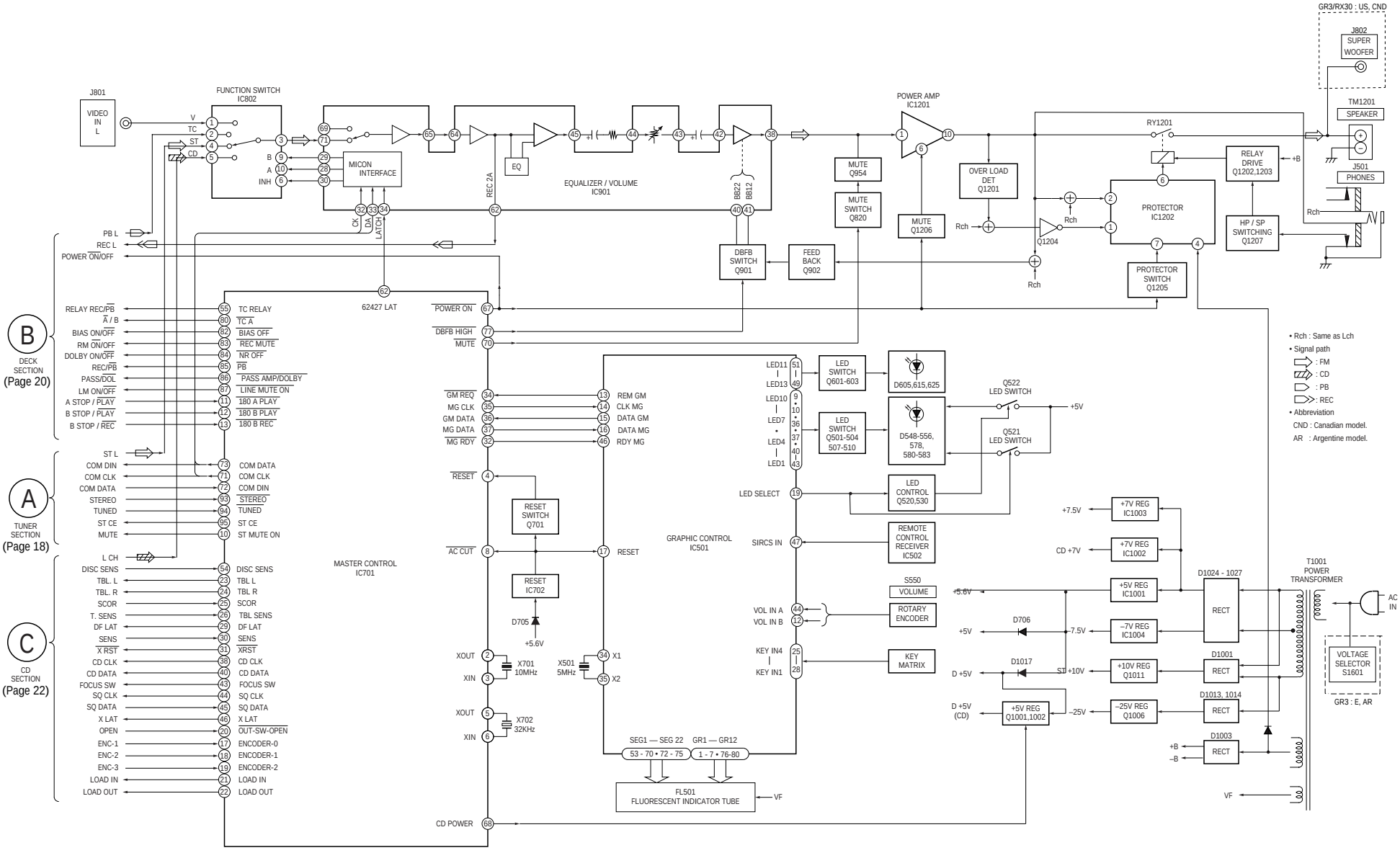
— DECK SECTION —



— CD SECTION —


OPTICAL PICK-UP BLOCK
DETECTOR
B+
K
E
A
D
B
C
F
FOCUS/TRACKING SERVO, EFM COMPARATOR IC101 (1/2)
RF1
PD2
F
E
RFO
C.OUT
SENS
FE BIAS
FE-O
FE-M
TA-M
TAO
DATA
XLT
CLK
FOK
FGD
XRST
RF
CNIN
SEIN
RV102 FOCUS GAIN
RV103 TRACKING GAIN
RV101 B+
FOCUS BIAS
FEI
FEO
TEO
TEI
LD DRIVE Q101, 102
LD
PHD
LASER DIODE
FOCUS SW Q103
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
T+
T–
F–
F+
X RESET
TRACKING COIL DRIVE
FOCUS COIL DRIVE
FOCUS/TRACKING COIL DRIVE IC102 (1/2)
SLED/SPINDLE MOTOR DRIVE IC102 (2/2)
SLED SERVO IC101 (2/2)
SLED MOTOR DRIVE
SPINDLE MOTOR DRIVE
SLO
SL+
M102 SLED MOTOR
M101 SPINDLE MOTOR
09
DIGITAL SIGNAL PROCESSOR, CLV SERVO IC103
DATAO
XLTO
CLKO
MDP
FOK
XLON
DATA
XLAT
CLOK
SCOR
SQSO
SQCK
SENS
XRST
DOUT
XTAI
CKO
XTI
XTO
X101 16.9344MHz
DIGITAL FILTER D/A CONVERTER IC104
PCMD
LRCK
BCLK
DATA
LRCK
BCLK
L OUT
R OUT
L-CH
R-CH
CD CLK
CD DATA
DF LAT
SCOR
SQ DATA
SQ CLK
SENS
FOCUS SW
XRST
X LAT
C
MAIN SECTION
(Page 23)
TABLE SENSOR IC702
T. SENS
DISC SENSOR IC703
Q701
DISC SENS
ROTARY ENCODER S811
ENC 1
ENC 2
ENC 3
TURN MOTOR DRIVER IC701
S801 OPEN/CLOSE DET
OPEN
M701 TURN MOTOR
OUT1
OUT2
IN1
IN2
TBL.L
TBL.R
SLIDE MOTOR DRIVER IC801
M801 SLIDE MOTOR
OUT2
OUT1
RIN
FIN
LOAD IN
LOAD OUT
• R CH: Same as L ch
• SIGNAL PATH
: CD

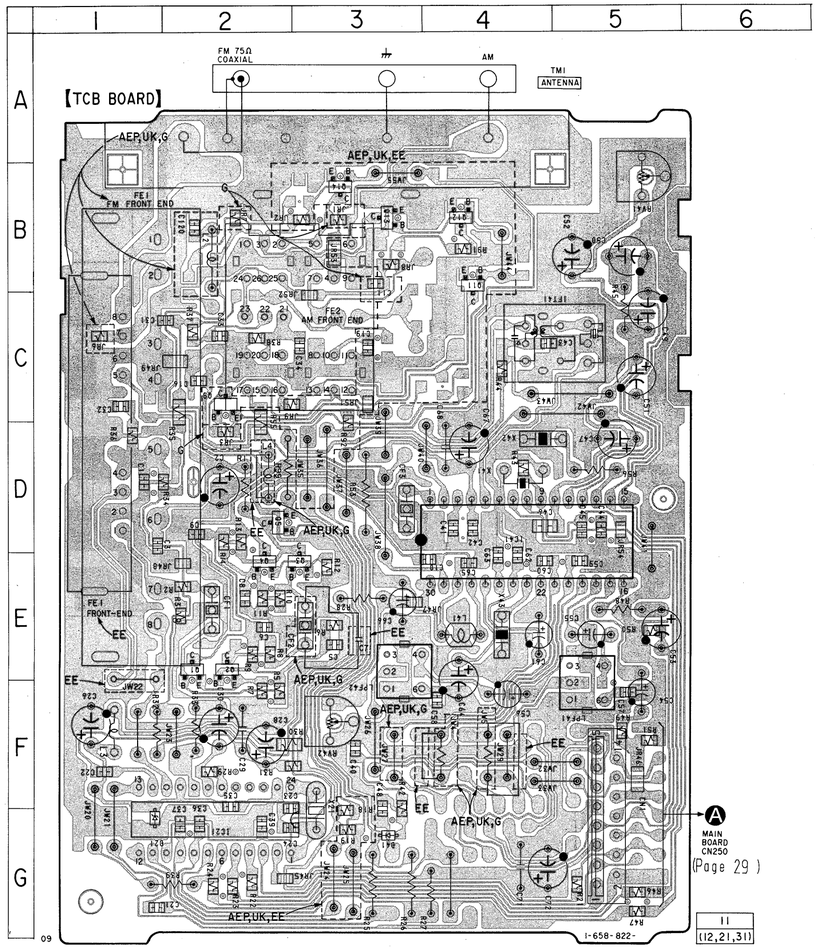
— MAIN SECTION —



09

6-3. PRINTED WIRING BOARD — TUNER SECTION —

• See page 16 for Circuit Boards Location.



• Semiconductor Location

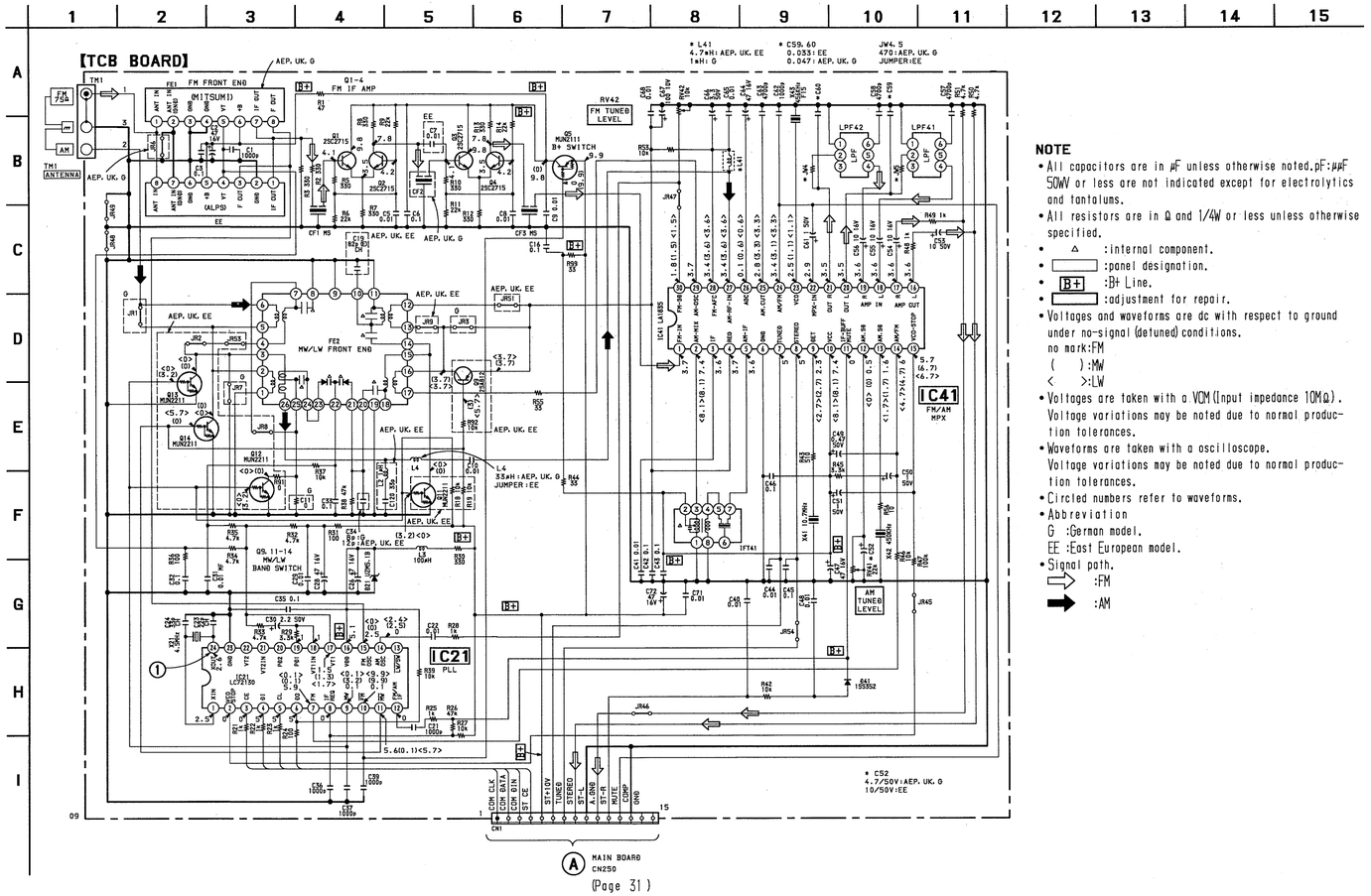
Ref. No.	Location
D21	G-1
D41	G-3
IC21	G-2
IC41	D-4
Q1	E-2
Q2	E-2
Q3	E-3
Q4	E-2
Q5	D-2
Q9	C-2
Q11	B-4
Q12	B-4
Q13	B-3
Q14	B-3

Note:

- ○—— : parts extracted from the component side.
- △ : Internal component.
- ▒▒ : Pattern from the side which enable seeing.
- Abbreviation
  G : German model.
  EE : East European model.

6-4. SCHEMATIC DIAGRAM — TUNER SECTION —

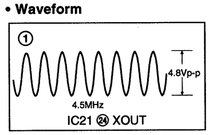
• See page 53 for IC Block Diagrams.


【TCB BOARD】
AEP, UK, G
TM1 ANTENNA
FE1 FM FRONT END
Q1~4 FM 1F AMP
RV42 FM TUNED LEVEL
Q5 MUN2111 B+ SWITCH
* L41 4.7uH: AEP, UK, EE 1uH: G
* C59, 60 0.033: EE 0.047: AEP, UK, G
JW4, 5 470: AEP, UK, G JUMPER: EE
LPF42
LPF41
AEP, UK, EE
FE2 MW/LW FRONT END
IC41 FM/AM MPX
L4 33uH: AEP, UK, G JUMPER: EE
09-11-14 MW/LW BAND SWITCH
IC21 PLL
AM TUNED LEVEL
* C52 4.7/50V: AEP, UK, G 10/50V: EE
CN1
A MAIN BOARD CN250 (Page 31)

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  ( ) : MW
  < > : LW
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation
  G : German model.
  EE : East European model.
- Signal path.
  ⇨ : FM
  ➡ : AM

• Waveform



6-5. PRINTED WIRING BOARD — MAIN SECTION —

• See page 16 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D201	K-10	IC301	F-6
D202	K-10	IC302	F-4
D381	G-5	IC303	C-4
D382	G-6	IC304	G-4
D383	G-6	IC701	I-8
D384	H-9	IC702	G-8
D385	J-3	IC802	B-11
D386	G-5	IC901	C-9
D387	G-6	IC1001	G-14
D450	E-7	IC1002	H-11
D451	F-7	IC1003	E-15
D452	E-7	IC1004	C-15
D453	E-7	IC1201	K-13
D701	G-9	IC1202	H-13
D702	G-8		
D703	G-9	Q301	A-7
D704	H-9	Q351	K-5
D705	G-9	Q352	J-5
D706	G-9	Q353	J-5
D707	G-7	Q354	J-5
D708	G-10	Q380	I-4
D901	F-9	Q381	D-7
D939	A-10	Q382	D-7
D940	D-8	Q401	B-7
D1001	B-14	Q450	B-8
D1003	C-14	Q451	D-7
D1007	G-14	Q701	G-9
D1008	C-13	Q820	E-11
D1009	E-16	Q901	F-9
D1010	D-16	Q902	F-9
D1013	E-16	Q951	F-8
D1014	E-16	Q952	E-8
D1017	G-13	Q953	F-11
D1023	F-17	Q954	F-10
D1024	B-15	Q1001	H-14
D1025	B-15	Q1002	H-14
D1026	B-16	Q1006	E-17
D1027	B-16	Q1011	B-14
D1059	E-15	Q1201	J-11
D1069	D-15	Q1201	I-13
D1201	J-12	Q1203	I-13
D1202	J-16	Q1204	H-14
D1204	F-15	Q1205	I-12
D1205	H-14	Q1206	I-12
D1251	J-14	Q1207	I-14
D1309	D-14	Q1251	J-15
D1310	D-14		

Note:

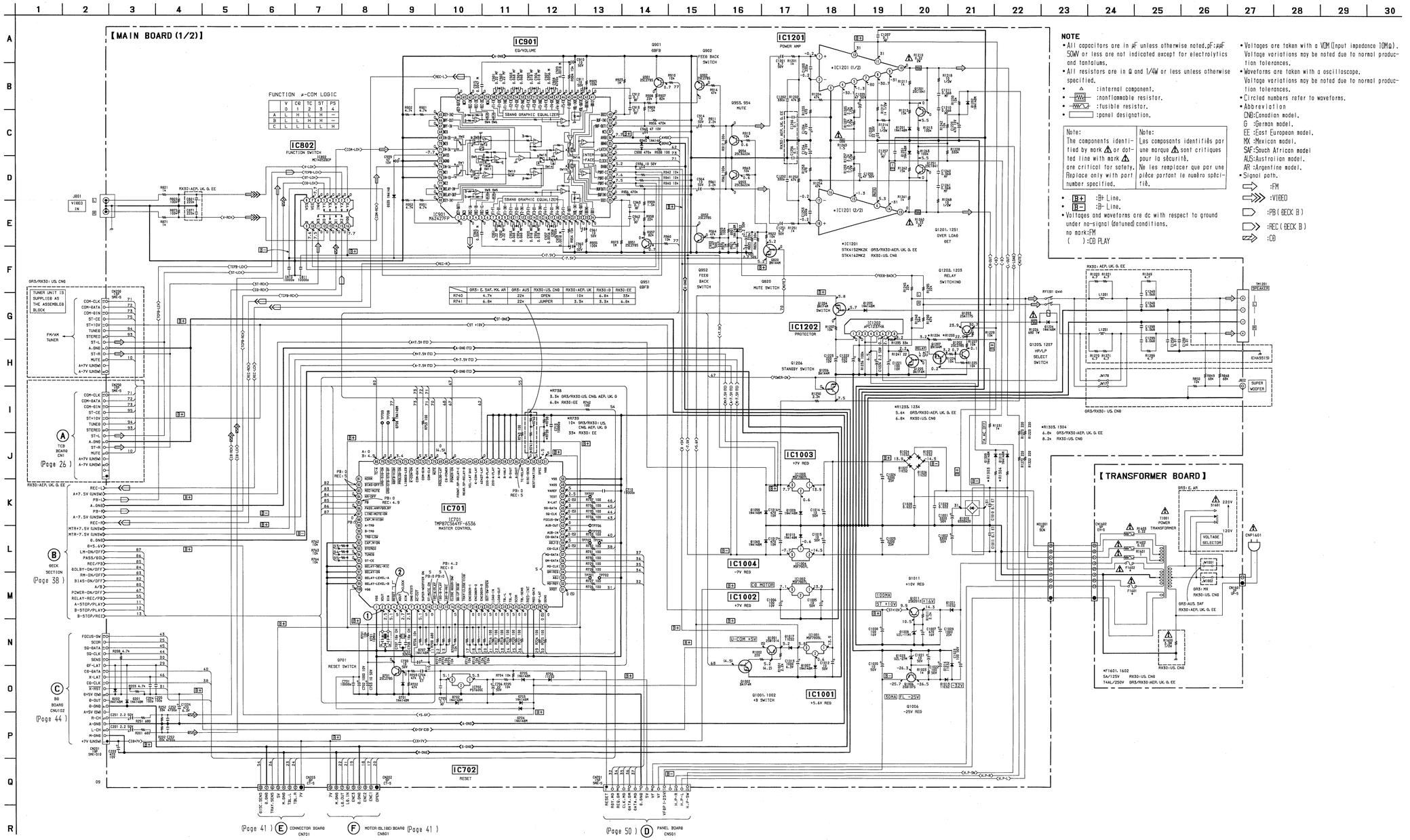
- ○——: parts extracted from the component side.
- ▒▒▒: Pattern from the side which enable seeing.
- Abbreviation
  - CND : Canadian model.
  - G : German model.
  - EE : East European model.
  - MX : Mexican model.
  - AUS : Australian model.
  - AR : Argentine model.
  - SAF : South African model.

【MAIN BOARD】

【TRANSFORMER BOARD】

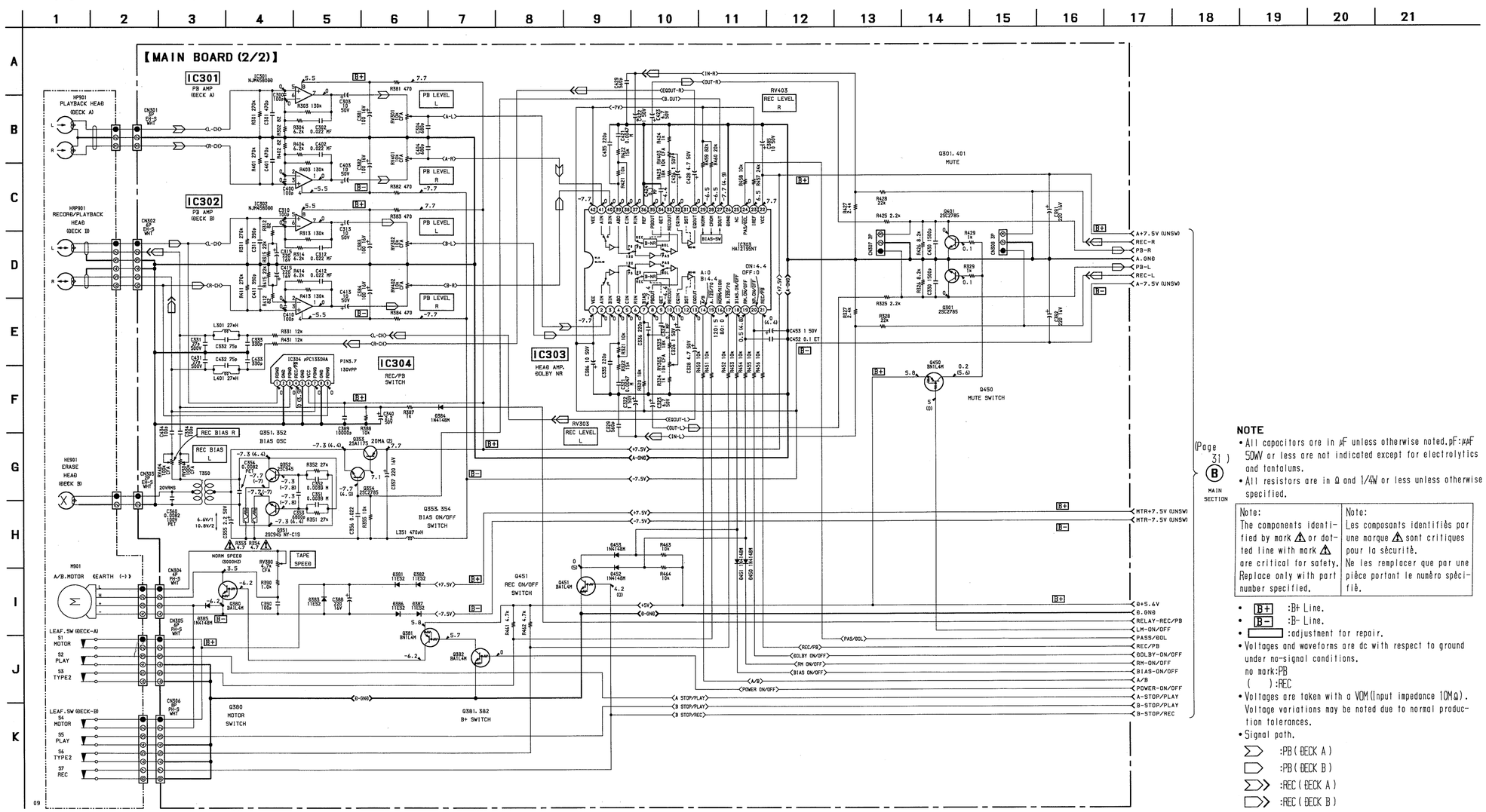
6-6. SCHEMATIC DIAGRAM — MAIN SECTION —

- See page 54 for IC Block Diagrams.
- See page 56 for IC Pin Functions.



6-7. SCHEMATIC DIAGRAM — DECK SECTION —

- See page 28 for Printed Wiring Board (Main board).
- See page 54 for IC Block Diagrams.



NOTE

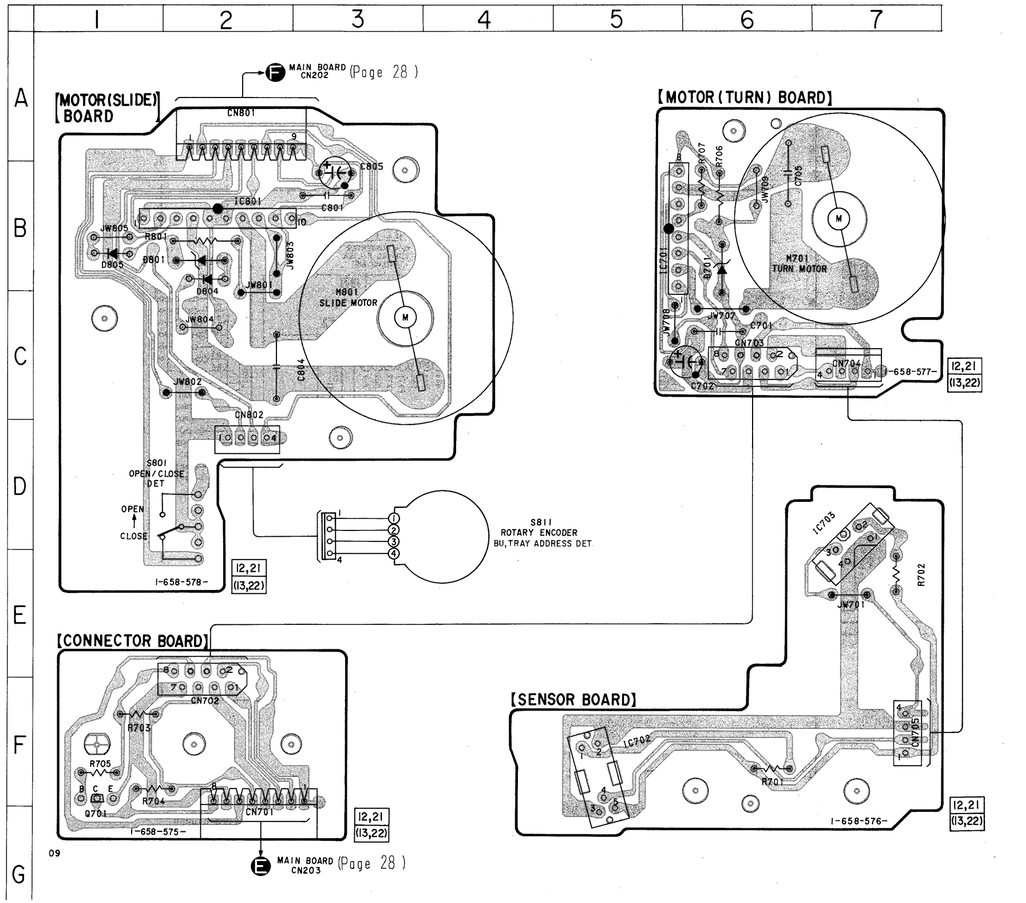
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ Line.
- B- Line.
- [ ] : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: PB
  ( ): REC
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK A)
  - : REC (DECK B)

6-8. PRINTED WIRING BOARD — CD MOTOR SECTION —

• See page 16 for Circuit Boards Location.

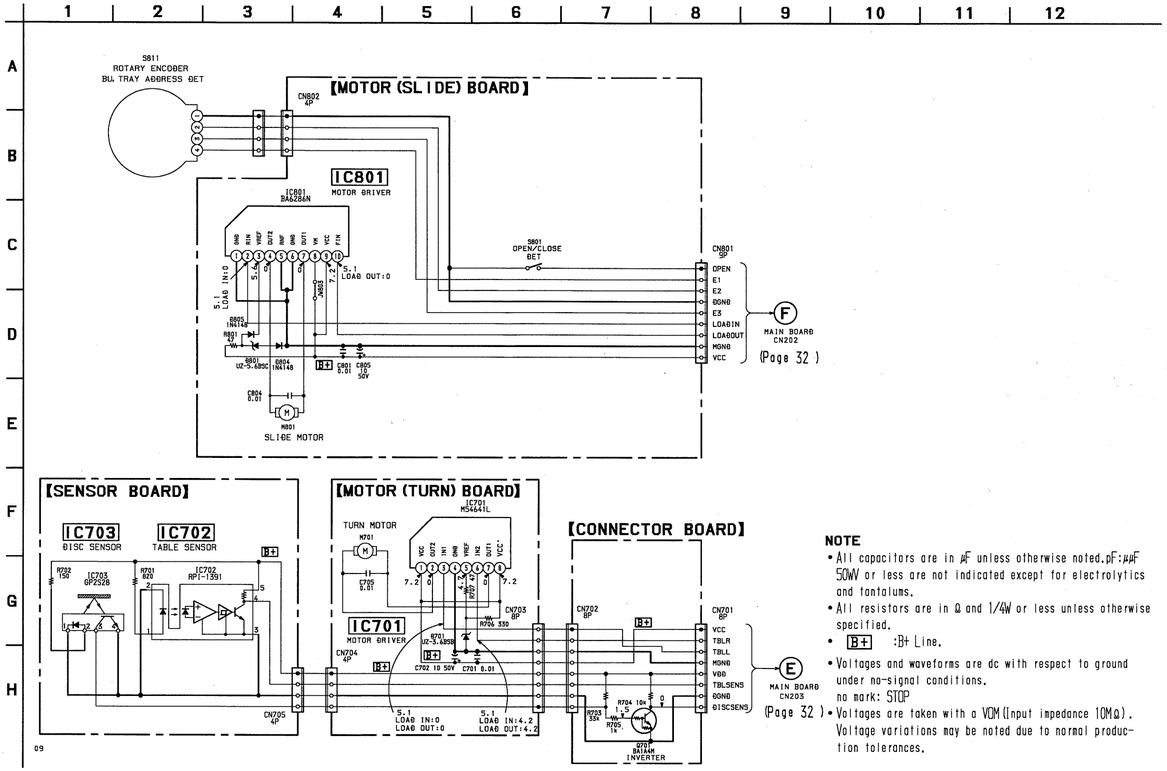


Note:

- ⟶ : parts extracted from the component side.
- ▒▒ : Pattern from the side which enable seeing.

6-9. SCHEMATIC DIAGRAM — CD MOTOR SECTION —

• See page 54 for IC Block Diagrams.



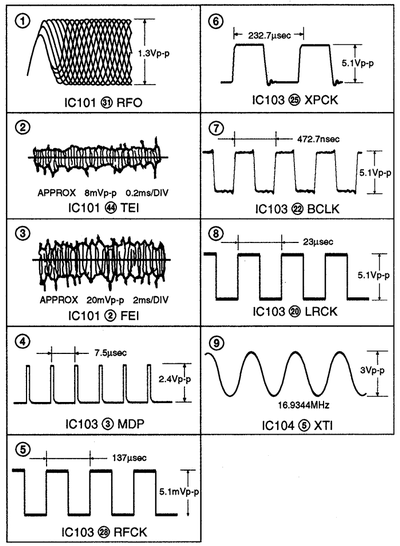
NOTE

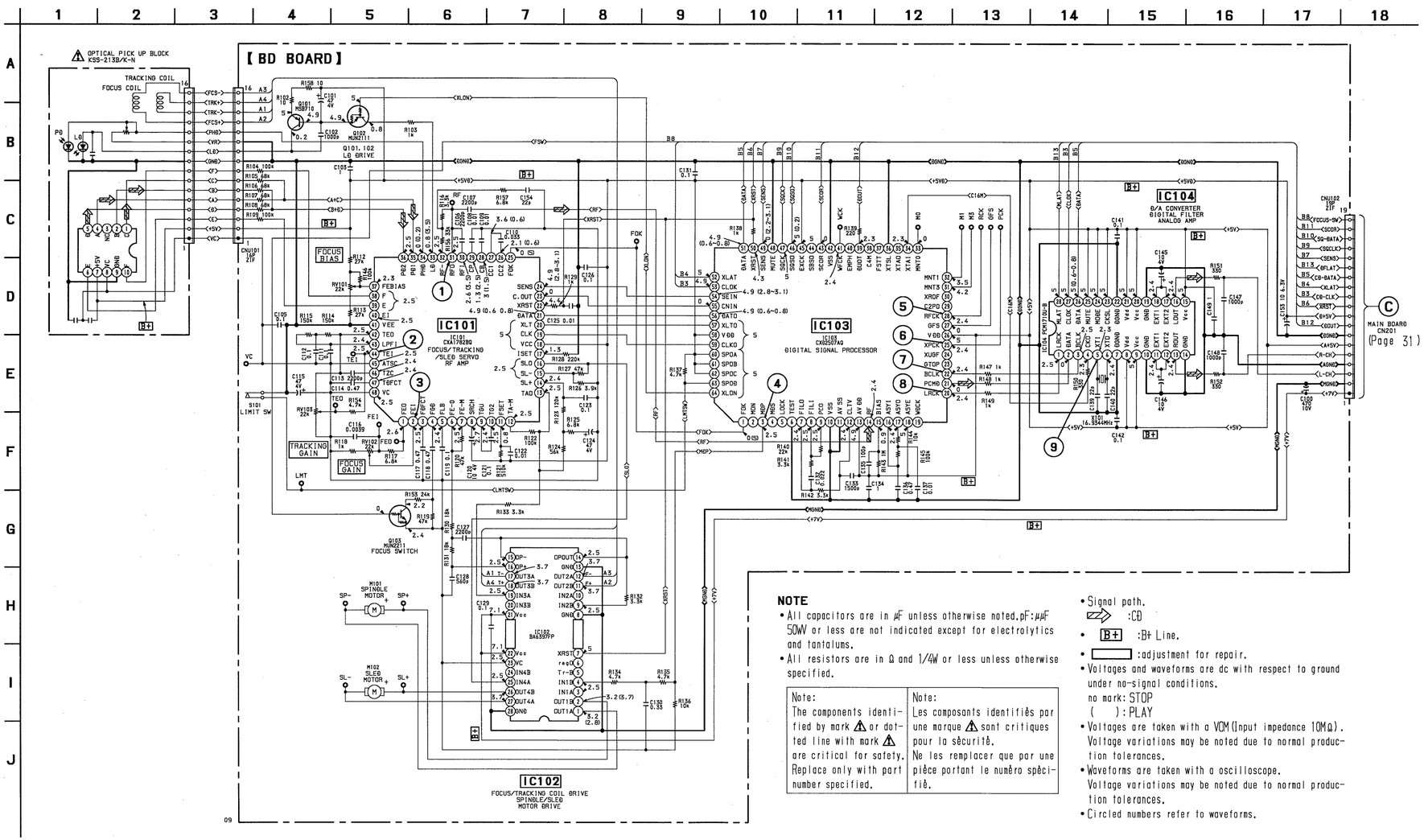
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

6-10. SCHEMATIC DIAGRAM — CD SECTION —

• See page 51 for IC Block Diagrams.

• Waveforms





NOTE

- All capacitors are in µF unless otherwise noted. pF: µF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

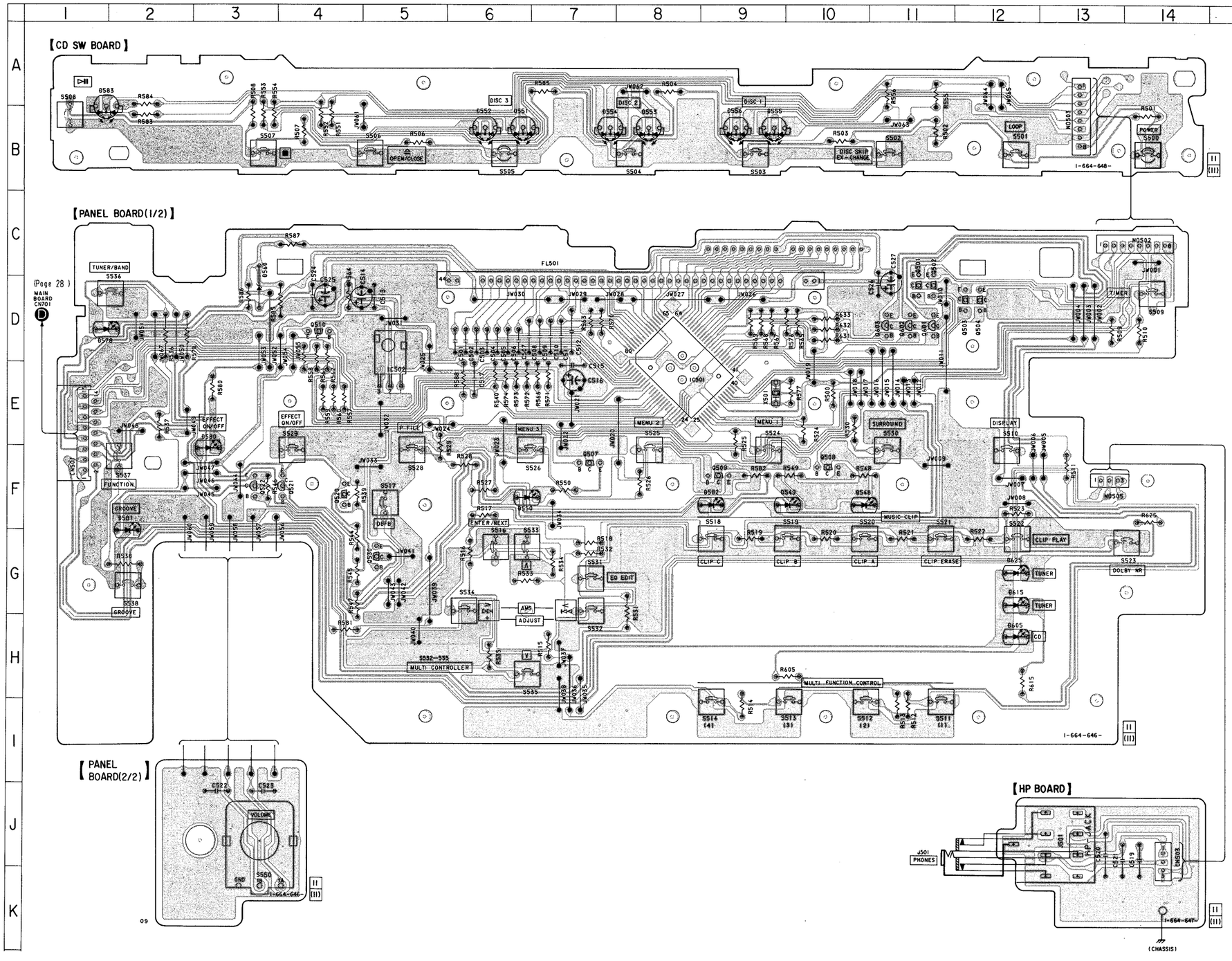
- Signal path. ⇨ :CD
- B+ :B+ Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP ( ): PLAY
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

6-12. PRINTED WIRING BOARD — PANEL SECTION —

• See page 16 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
D548	F-10
D549	F-10
D550	F-6
D551	B-6
D552	B-6
D553	B-8
D554	B-7
D555	B-9
D556	B-9
D560	C-3
D578	D-1
D580	E-3
D581	F-2
D582	F-9
D583	A-1
D605	H-12
D615	G-12
D625	G-12
IC501	E-8
IC502	E-5
Q501	C-11
Q502	C-11
Q503	D-12
Q504	D-12
Q507	F-7
Q508	F-10
Q509	F-9
Q510	D-4
Q520	F-4
Q521	F-4
Q522	F-3
Q530	G-5
Q601	D-11
Q602	D-11
Q603	D-11



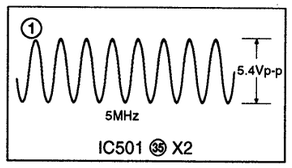
Note:

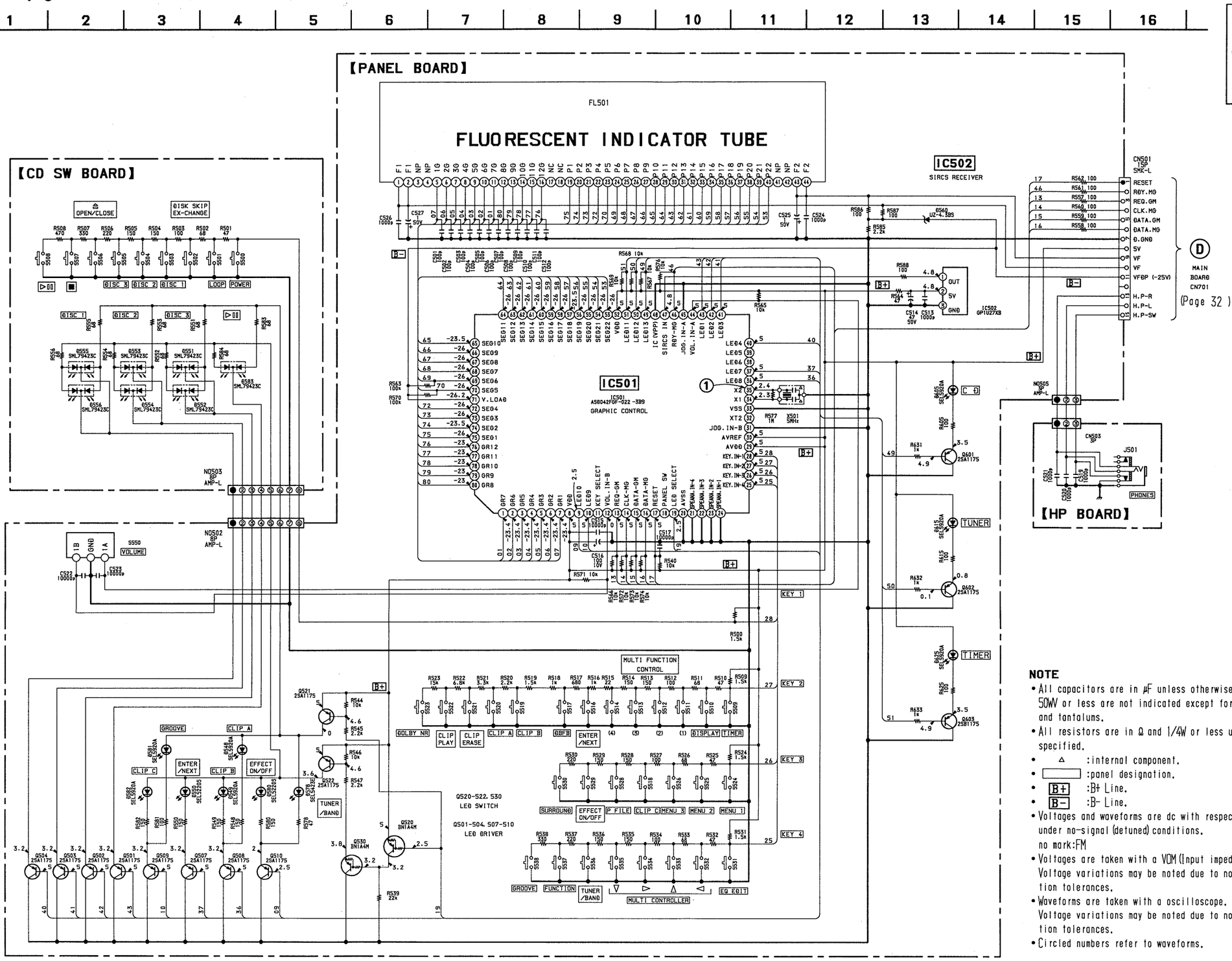
- ⟜ : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.

6-13. SCHEMATIC DIAGRAM — PANEL SECTION —

• See page 55 for IC Pin Functions.

• Waveform



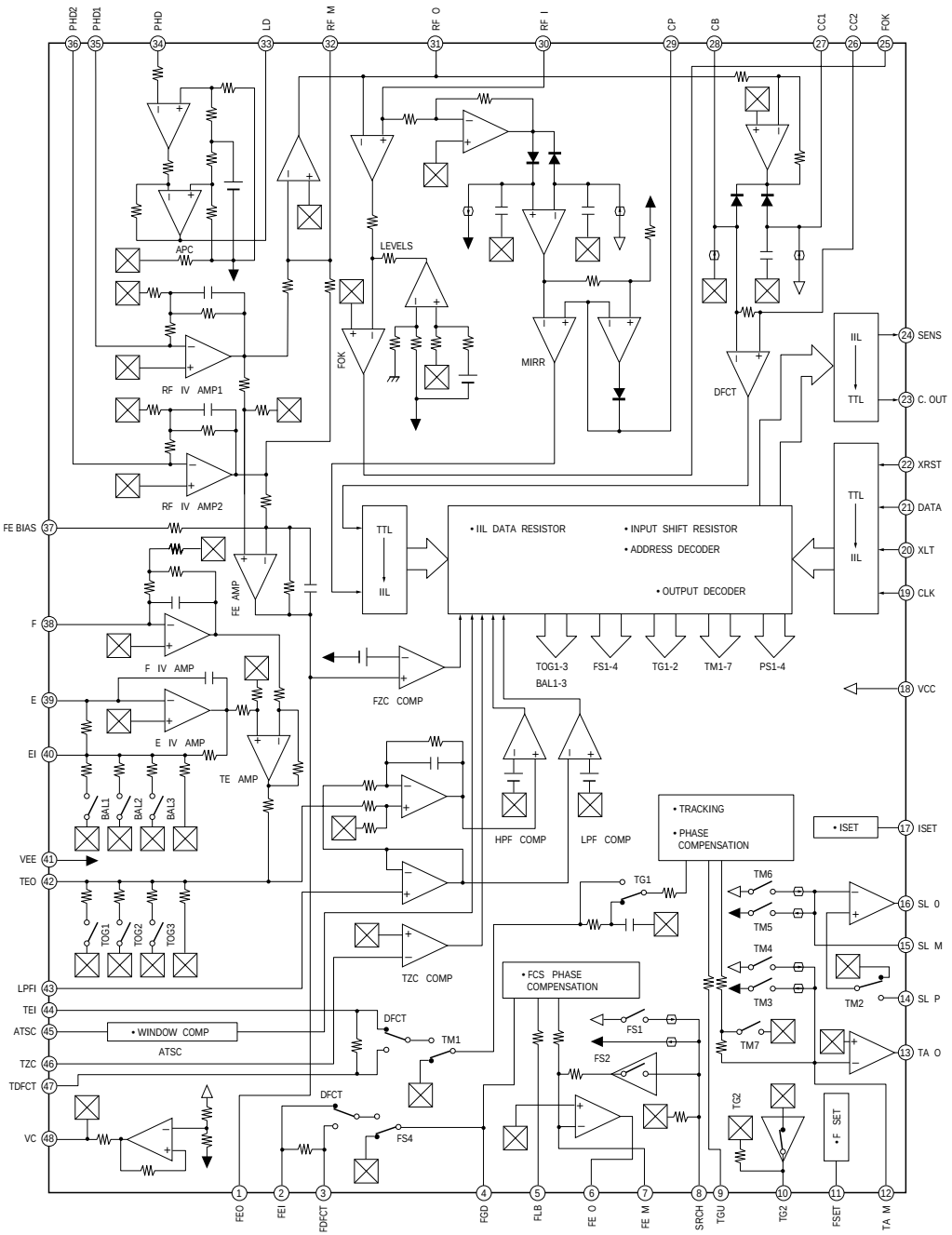


NOTE

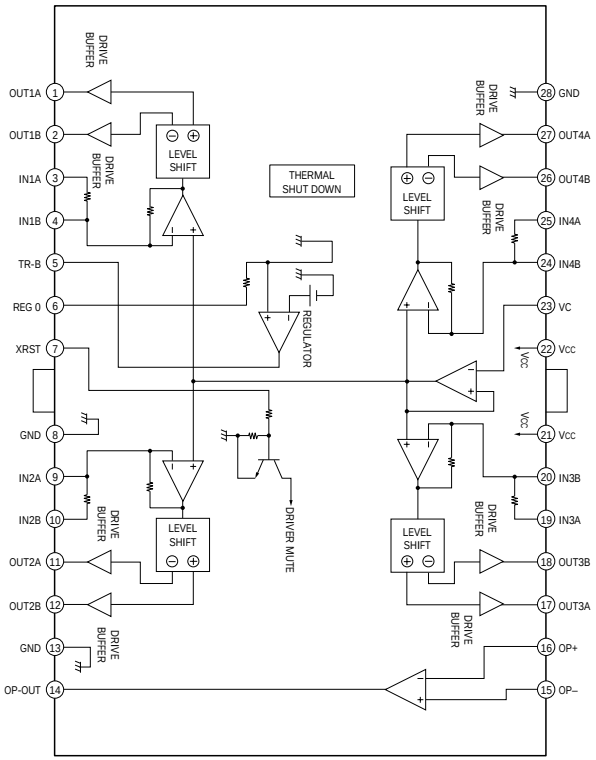
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- □ :panel designation.
- B+ :B+ Line.
- B- :B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark:FM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

6-14. IC BLOCK DIAGRAMS

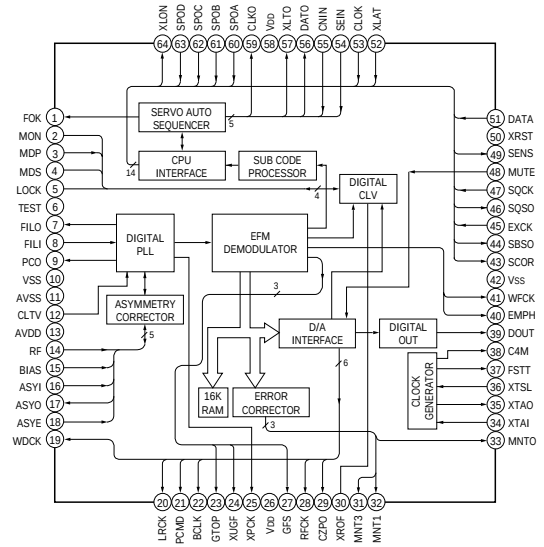
IC101 CXA1782BQ



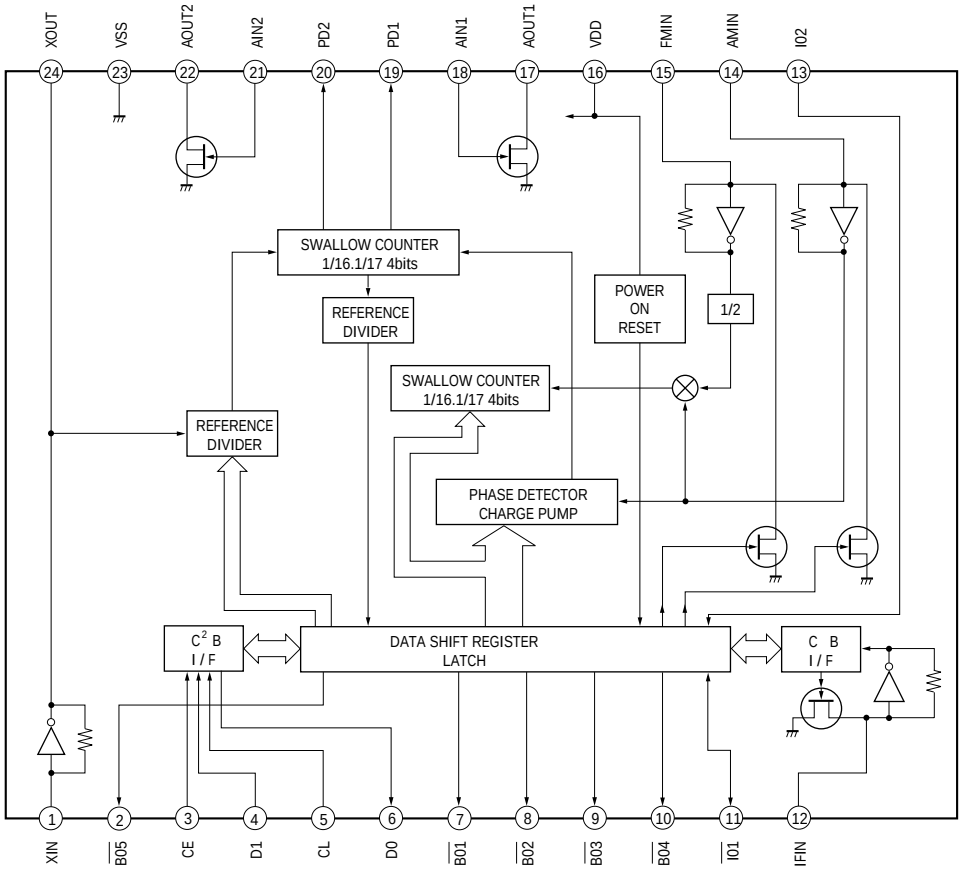
IC102 BA6397FP



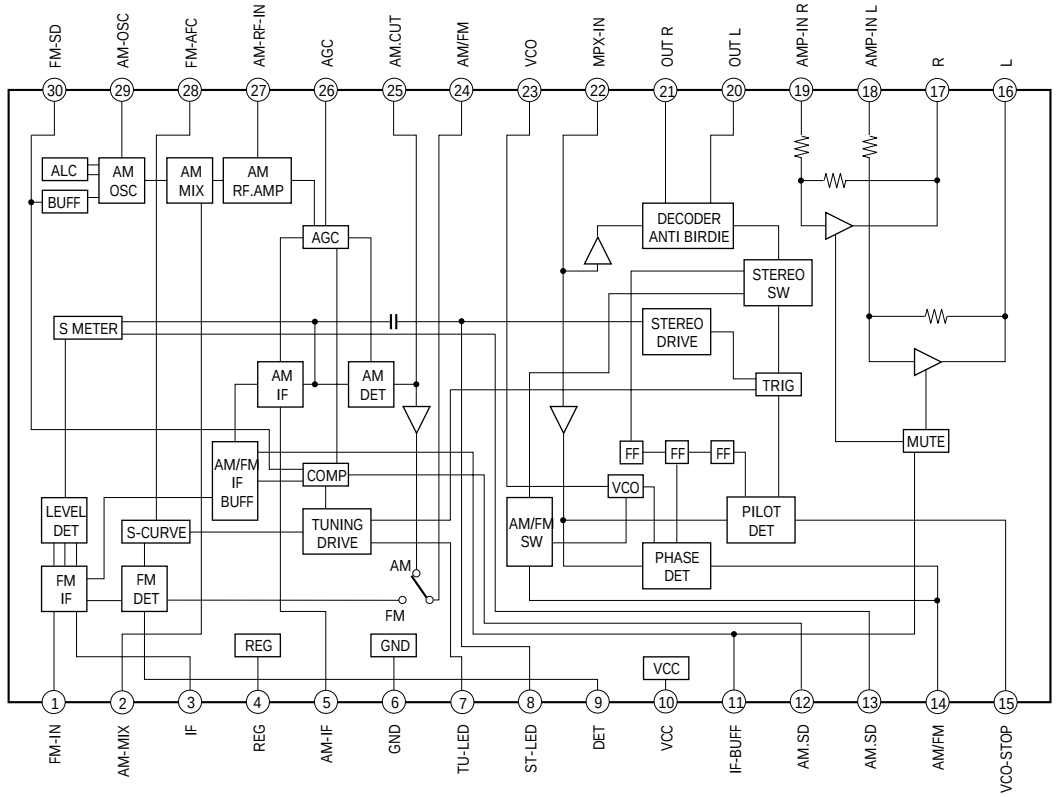
IC103 CXD2507AQ



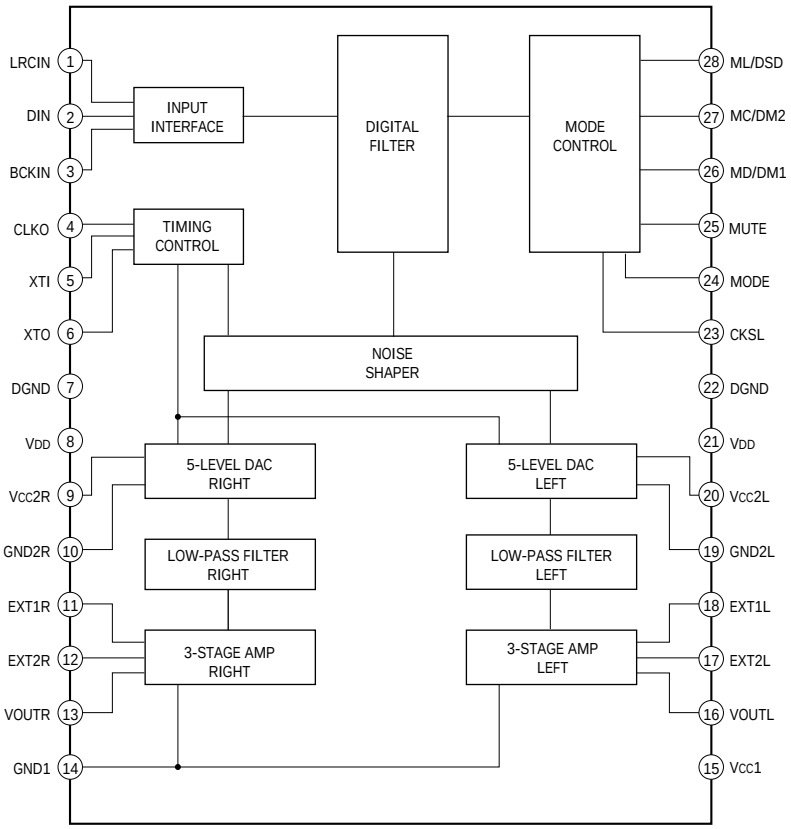
IC21 LC72130



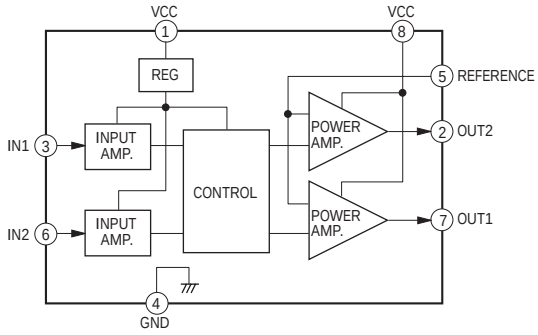
IC41 LA1835



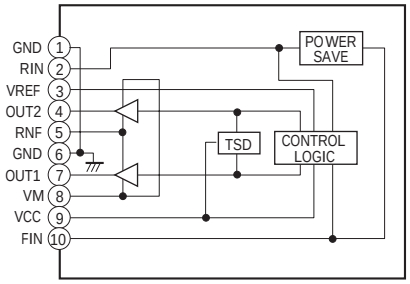
IC104 PCM1710U-B



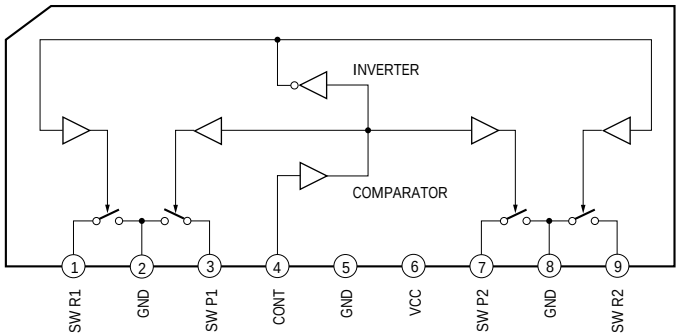
IC701 M54641L



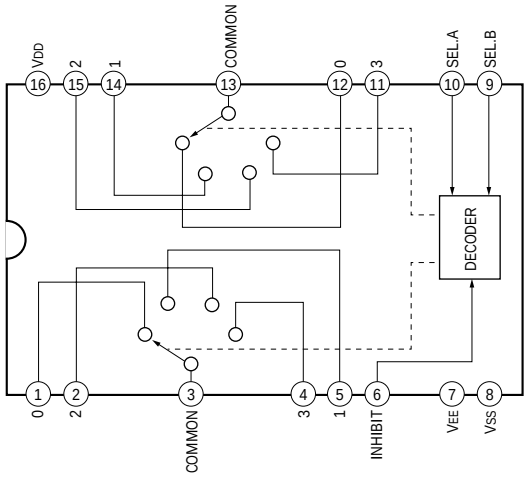
IC801 BA6286N



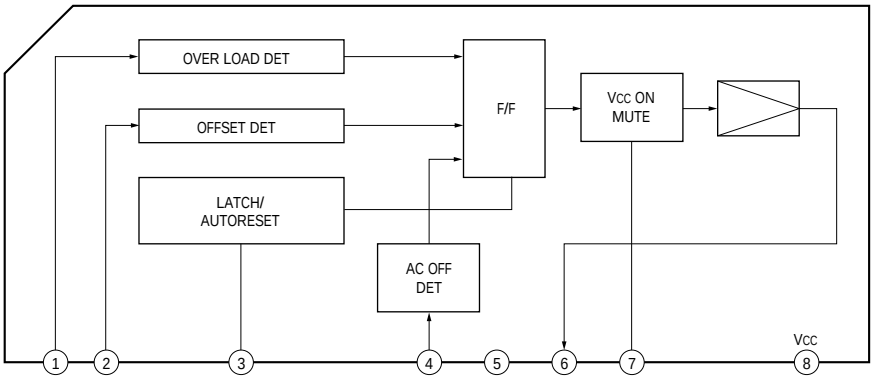
IC304 μPC1330HA



IC802 MC14052BCP



IC1202 μPC1237HA



6-15. IC PIN FUNCTIONS

• IC501 GRAPHIC CONTROL (ASD042FGF-022-3B9)

Pin No.	Pin Name	I/O	Function
1 – 7	GR1 – GR7	O	FL grid signal output
8	VDD	—	+5V
9, 10	LED9, LED10	O	LED drive signal output
11	KEY SELECT	O	Not used
12	VOL IN B	I	Volume encoder signal input
13	REQ. GM	I/O	Reguest signal from/to master control
14	CLK MG	I	Serial clock input
15	DATA GM	O	Serial data output
16	DATA MG	I	Serial data input
17	RESET	I	Reset signal input
18	PANEL SW	I	CD door open detection input (Not used)
19	LED SELECT	O	LED select signal output
20	AVss	—	Ground
21 – 24	SPEANA IN1 – 4	I	Spectram analizer signal input (Connected to ground)
25 – 28	KEY IN1 – 4	I	Key matrix input
29	AVDD	—	+5V
30	AVREF	—	
31	JOG IN B	I	Not used (Pull down)
32	XT2	I	Not used
33	Vss	—	Ground
34	X1	I	X’tal (5 MHz)
35	X2	O	
36, 37	LED7, LED8	O	LED drive signal output
38, 39	LED5, LED6	O	Not used
40 – 43	LED1 – LED4	O	LED drive signal output
44	VOL IN A	I	Volume encoder signal input
45	JOG IN A	I	Not used. (Pull down)
46	RDY MG	I	RDY signal from master control
47	SIRCS IN	I	SIRCS signal input
48	IC (VPP)	—	Ground
49 – 51	LED11 – LED13	O	LED drive signal output
52	VDD	—	+5V
53 – 70	SEG5 – SEG22	O	FL segment signal output
71	V. LOAD	—	–25V for FL
72 – 75	SEG1 – SEG4	O	FL segment signal output
76 – 80	GR8 – GR12	O	FL grid signal output

• Abbreviation
FL: FLUORESCENT INDICATOR TUBE

• IC701 MASTER CONTROL (TMP87CS64YF-6536)

Pin No.	Pin Name	I/O	Function
1	VSS	–	Ground
2	XOUT	O	X'tal (10 MHz)
3	XIN	I	
4	$\overline{\text{RESET}}$	I	Reset signal input
5	XOUT	O	X'tal for clock (32.768 KHz)
6	XIN	I	
7	GND (test)	–	Ground
8	$\overline{\text{AC CUT}}$	I	Back up signal input
9	SUPER WOOFER ON	O	Not used (Pull up)
10	ST-MUTE ON	O	Mute signal output for tuner
11	$\overline{\text{180-A-PLAY}}$	I	Tape detection signal input
12	$\overline{\text{180-B-PLAY}}$	I	
13	$\overline{\text{180-B-REC}}$	I	
14	$\overline{\text{CLOSE (DOOR-SW)}}$	I	Not used. (Pull up)
15	$\overline{\text{BD-UP (5CD)}}$	I	Disc table up detect (Not used) (Pull down)
16	$\overline{\text{TRAY-CLOSE (1CD)}}$	I	Loading in detection signal input (Connected to ground)
17	ENCODER-0	I	Disctray address detect encoder input
18	ENCODER-1	I	
19	ENCODER-2	I	
20	$\overline{\text{OUT SW OPEN}}$	I	Loading out detection signal input
21	LOAD IN	O	Loading motor control signal output
22	LOAD OUT	O	
23	TBL-L	O	Table motor control signal output
24	TBL-R	O	
25	SCOR	I	Sub-code sync signal input
26	TBL-SENS	I	CD Table sensor signal input
27	RDS INT	I	RDS data start input (Not used)
28	RDS DATA	I	RDS data start output (Not used)
29	DF LAT	O	Latch signal for digital filter
30	SENS	I	Table sence signal input
31	$\overline{\text{XRST}}$	O	Reset signal output for CD
32	$\overline{\text{MG-RDY}}$	O	Ready signal to graphic control
33	$\overline{\text{ADJ}}$	I	Test mode input
34	$\overline{\text{GM-REQ}}$	I	Request signal from graphic control
35	MG-CLK	O	Clock signal to graphic control
36	GM-DATA	I	Data input from graphic control
37	MG-DATA	O	Data output to graphic control
38	CD-CLK	O	Clock output. Serial bus line
39	$\overline{\text{ADJ-2}}$	I	Test mode input
40	CD-DATA	O	Data output. Serial bus line

Pin No.	Pin Name	I/O	Function
41	AUB IN	I	Audio bus in/output. (Not used)
42	AUB OUT	O	
43	FOCUS SW	O	Focus switching signal output
44	SQ-CLK	O	Subcode Q data read clock output
45	SQ-DATA	I	Subcode Q data input
46	X-LAT	O	Latch signal output for digital signal processor
47	TEST	I	Test land
48	VAREF	I	Analog reference voltage input
49	V_{ASS}	–	Ground
50	V_{SS}	–	
51	V_{DD}	–	+5V
52	SPEC	I	Destination detection setting input
53	DESTINATION	I	
54	DISC SENS	I	Slit sensor of disc table input
55	TC RELAY	O	REC/PB select signal output
56	A-SHUT	I	Control signal input from deck (Connected to ground)
57	B-SHUT	I	
58	B-HALF	I	
59	A-HALF	I	
60	220-A-PLAY	I	
61	220-B-PLAY	I	
62	62427 LAT	O	PLL latch output
63	K-CON-LAT	O	Not used
64	VOL LAT (AV)	O	Latch signal for electrical volume (Not used)
65	REAR SP RELAY B	O	Rear speaker relay B Control output (Not used)
66	FRONT SP RELAY C	O	Front speaker relay C Control output (Not used)
67	$\overline{\text{POWER ON}}$	O	Power on signal output
68	CD POWER	O	CD power control signal output
69	$\overline{\text{PROLOG LAT}}$	O	Latch signal output for dolby pro logic (Not used)
70	$\overline{\text{MUTE}}$	O	Mute signal for AMP
71	COM CLK	O	PLL clock output
72	COM DIN	I	PLL data input
73	COM DATA	O	PLL data output
74	$\overline{\text{K CON ON}}$	O	Not used
75	LIDDED LED	O	Disc No LED drive signal output (Not used)
76	$\overline{\text{PROLOG-ON}}$	O	Not used
77	$\overline{\text{DBFB-HIGH}}$	O	DBFB switching signal output
78	URG-STB-STD-BY	I	Not used
79	$\overline{\text{URG-SIG-ON}}$	O	Not used
80	$\overline{\text{TC A}}$	O	Deck A, B select output

Pin No.	Pin Name	I/O	Function
81	$\overline{\text{NORM}}$	O	NORMAL/HIGH control signal output (Not used)
82	$\overline{\text{BIAS OFF}}$	O	Bias oscillation output
83	$\overline{\text{REC MUTE}}$	O	Mute output
84	$\overline{\text{NR OFF}}$	O	Dolby ON/OFF signal output
85	PB	O	REC/PB control signal output
86	$\overline{\text{PASS. AMP/DOLBY}}$	O	Dolby switching signal output
87	$\overline{\text{LINE MUTE ON}}$	O	Mute signal output for deck
88	$\overline{\text{CAP. M-HIGH}}$	O	Capstan motor control signal output (Not used)
89	A-TRG	O	Trigger motor control signal output (Not used)
90	B-TRG	O	
91	$\overline{\text{TRG LOW}}$	O	Trigger motor high/low contorol signal output (Not used)
92	$\overline{\text{CAP M ON}}$	O	Capstan motor ON/OFF control signal output (Not used)
93	$\overline{\text{STEREO}}$	I	Stereo dection signal from tuner
94	$\overline{\text{TUNED}}$	I	Tuned detection signal from tuner
95	ST-CE	O	Latch signal output for tuner
96	$\overline{\text{DELAY SEL MIC}}$	O	Not used
97	$\overline{\text{DELAY ON}}$	O	Not used (Connected to ground)
98	DELAY LEVEL A	O	
99	DELAY LEVEL B	O	
100	V_{DD}	–	+5V

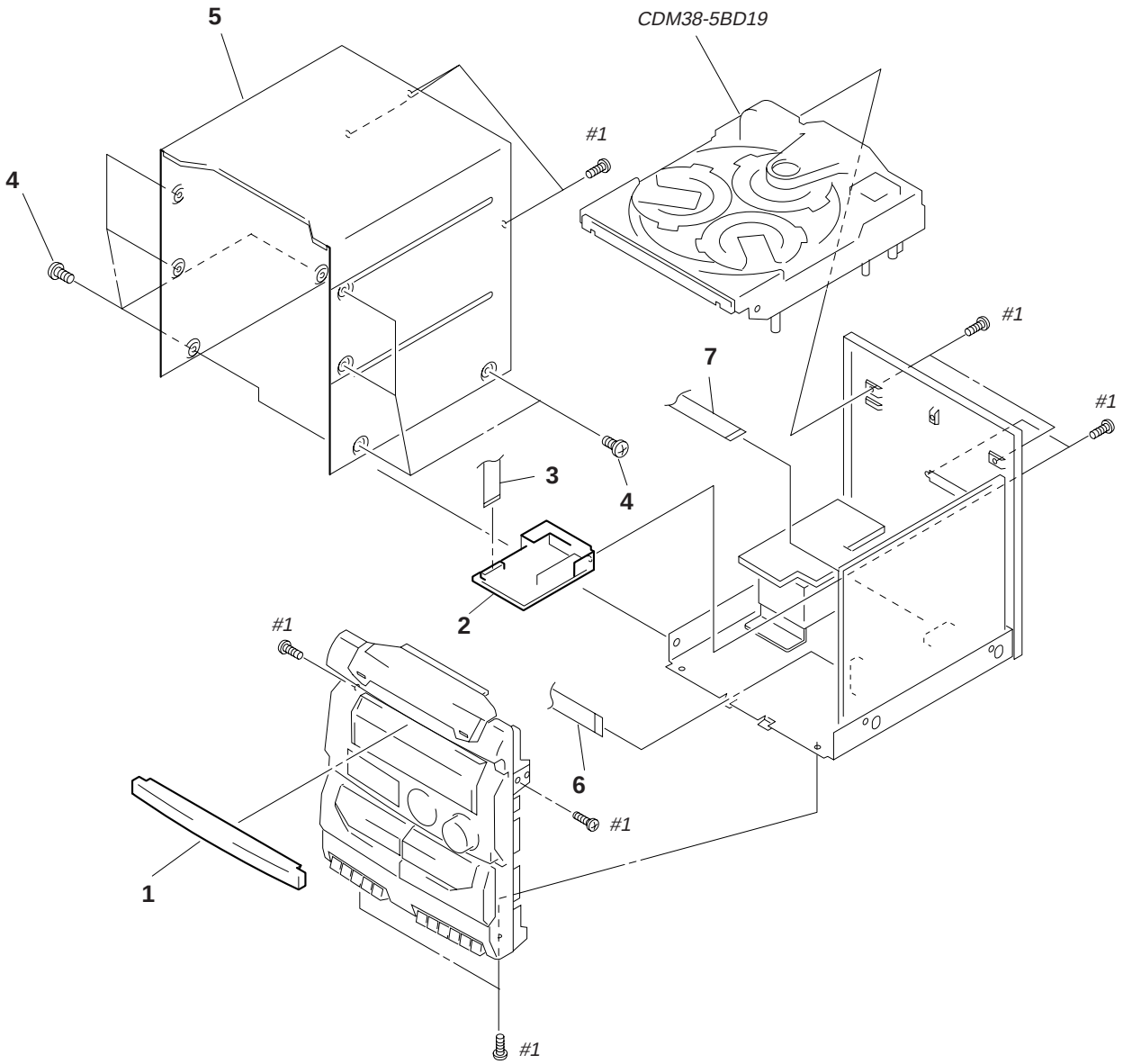
SECTION 7
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↓ ↓
  Parts color Cabinets color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  G : German model
  EE : East European model
  SAF : South African model
  MX : Mexican model
  AR : Argentine model
  AUS : Australian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

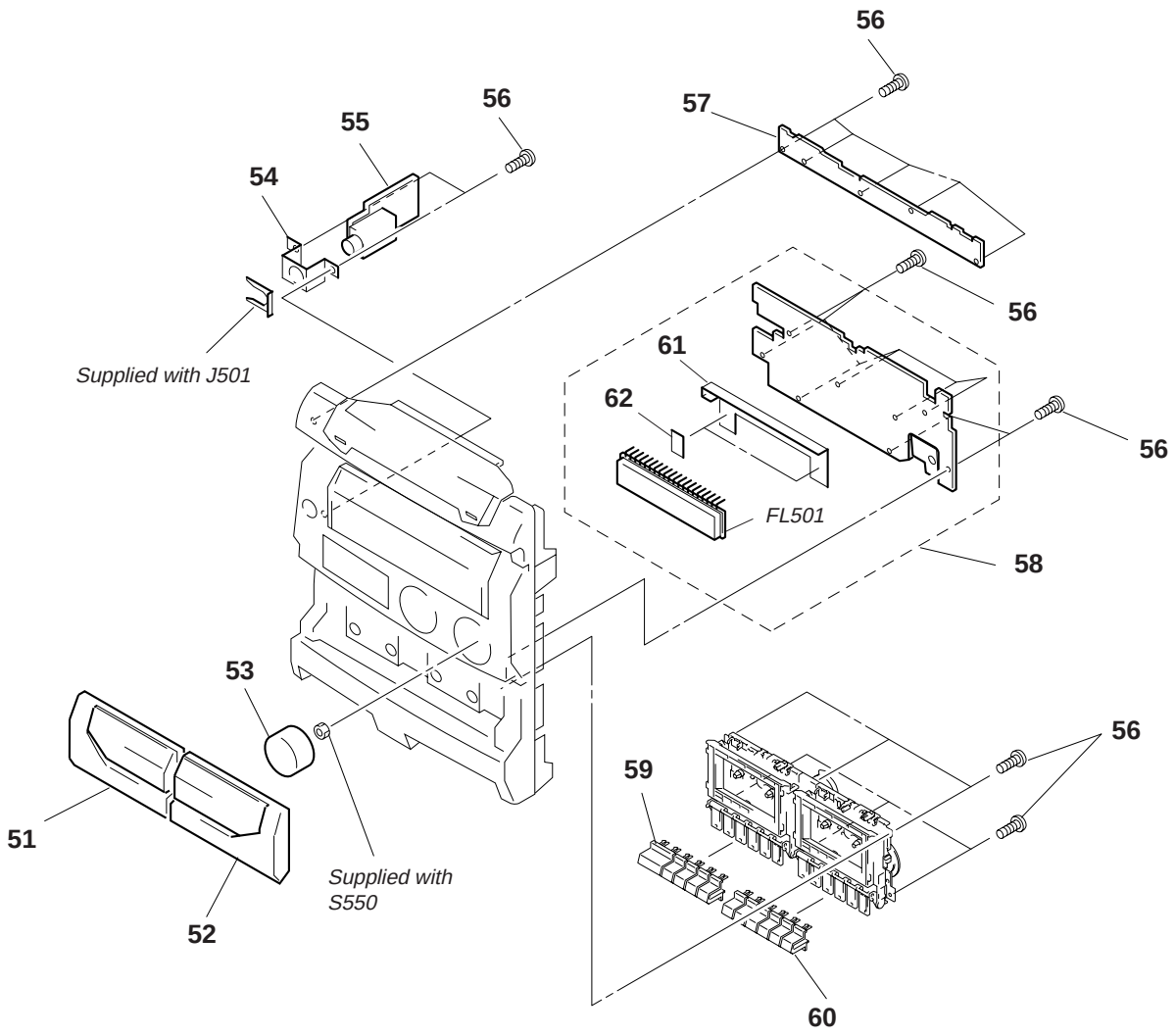
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

7-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	4-988-802-01	PANEL, LOADING (BLACK)(RX30)	
1	4-988-802-11	PANEL, LOADING (BLACK)(GR3)	
1	4-988-802-21	PANEL, LOADING (SILVER)(GR3)	
1	4-988-802-31	PANEL, LOADING (SILVER)(RX30)	
* 2	A-4303-514-A	TCB BOARD, COMPLETE (AEP, UK)	
* 2	A-4303-515-A	TCB BOARD, COMPLETE (G)	
* 2	A-4303-516-A	TCB BOARD, COMPLETE (EE)	
2	1-233-544-11	ENCAPSULATED COMPONENT (RX30:US,CND)	
2	1-233-545-11	ENCAPSULATED COMPONENT (GR3:EXCEPT SAF)	
2	1-233-546-11	ENCAPSULATED COMPONENT (GR3:SAF)	
3	1-769-977-11	WIRE (FLAT TYPE)(13 CORE)(GR3:SAF)	
3	1-782-079-11	WIRE (FLAT TYPE)(13 CORE) (GR3:EXCEPT SAF/RX30:US,CND)	
3	1-782-081-11	WIRE (FLAT TYPE)(15 CORE) (RX30:AEP,UK,G,EE)	
4	3-363-099-01	SCREW (CASE 3 TP2)	
* 5	4-978-748-01	CASE (BLACK)	
* 5	4-983-736-01	CASE (SILVER)	
6	1-773-020-11	WIRE (FLAT TYPE)(15 CORE)(SAF)	
6	1-782-082-11	WIRE (FLAT TYPE)(15 CORE)(EXCEPT SAF)	
7	1-776-240-11	WIRE (FLAT TYPE)(19 CORE)	

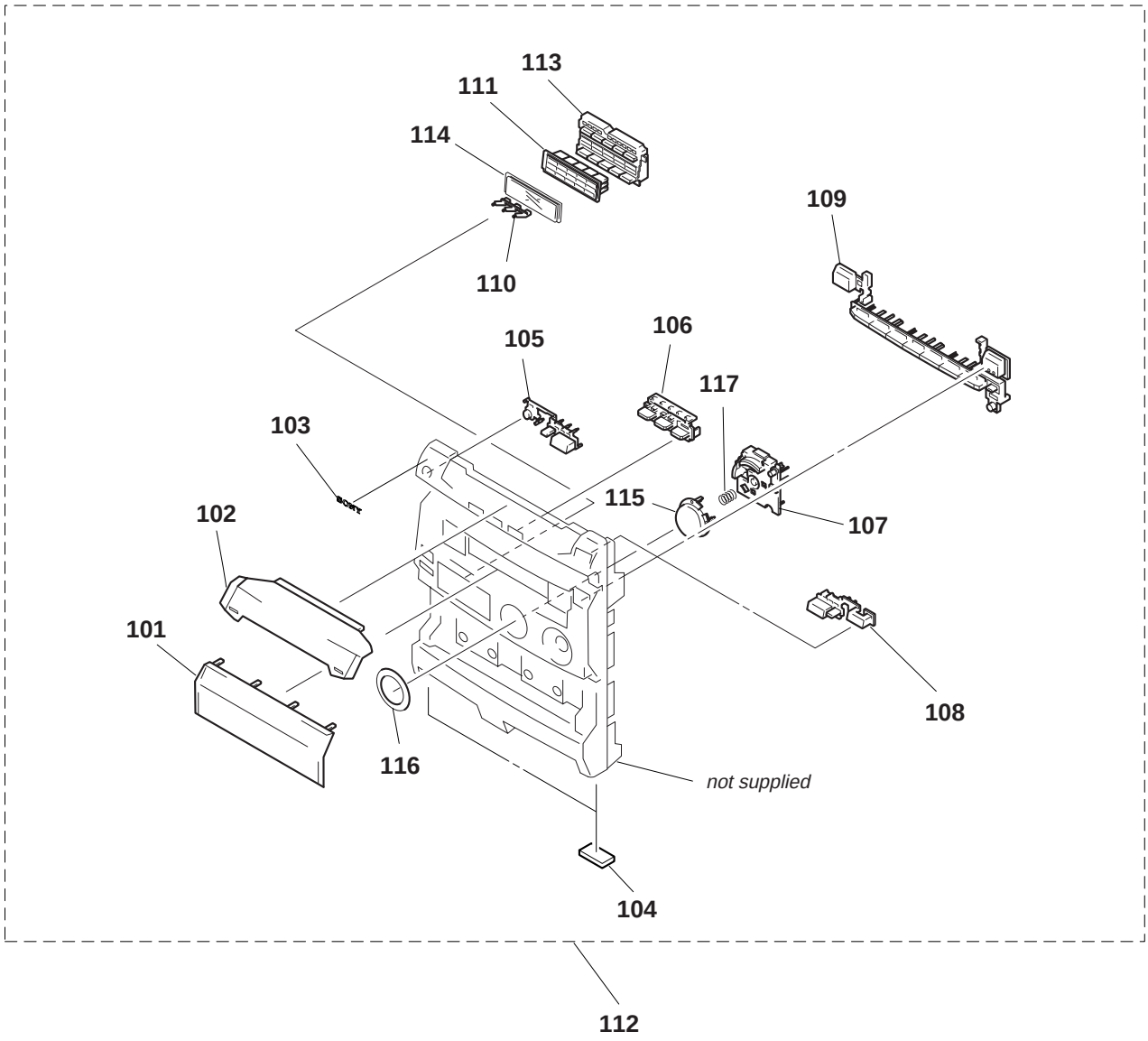
7-2. FRONT PANEL SECTION 1



Ref. No.	Part No.	Description	Remark
51	X-4948-140-1	LID (A) ASSY, CASSETTE (SILVER)	
51	X-4948-247-1	LID (A) ASSY, CASSETTE (BLACK)	
52	X-4948-141-1	LID (B) ASSY, CASSETTE (SILVER)	
52	X-4948-248-1	LID (B) ASSY, CASSETTE (BLACK)	
53	4-991-934-01	KNOB (VOL)(BLACK)	
53	4-991-934-11	KNOB (VOL)(SILVER)	
* 54	4-978-830-01	BRACKET, HP	
* 55	1-664-647-11	HP BOARD	
56	4-951-620-01	SCREW (2.6X8), +BVTP	
* 57	1-664-648-11	CD SW BOARD	

Ref. No.	Part No.	Description	Remark
* 58	A-4392-601-A	PANEL BOARD, COMPLETE (EXCEPT SAF)	
* 58	A-4398-500-A	PANEL BOARD, COMPLETE (SAF)	
59	4-978-826-01	BUTTON (MD-A)(BLACK)	
59	4-978-826-21	BUTTON (MD-A)(SILVER)	
60	4-978-827-01	BUTTON (MD-A)(BLACK)	
60	4-978-827-21	BUTTON (MD-B)(SILVER)	
* 61	4-978-168-01	HOLDER, FL TUBE	
* 62	4-932-810-11	CUSHION (FL)	
FL501	1-517-660-11	INDICATOR TUBE, FLUORESCENT	

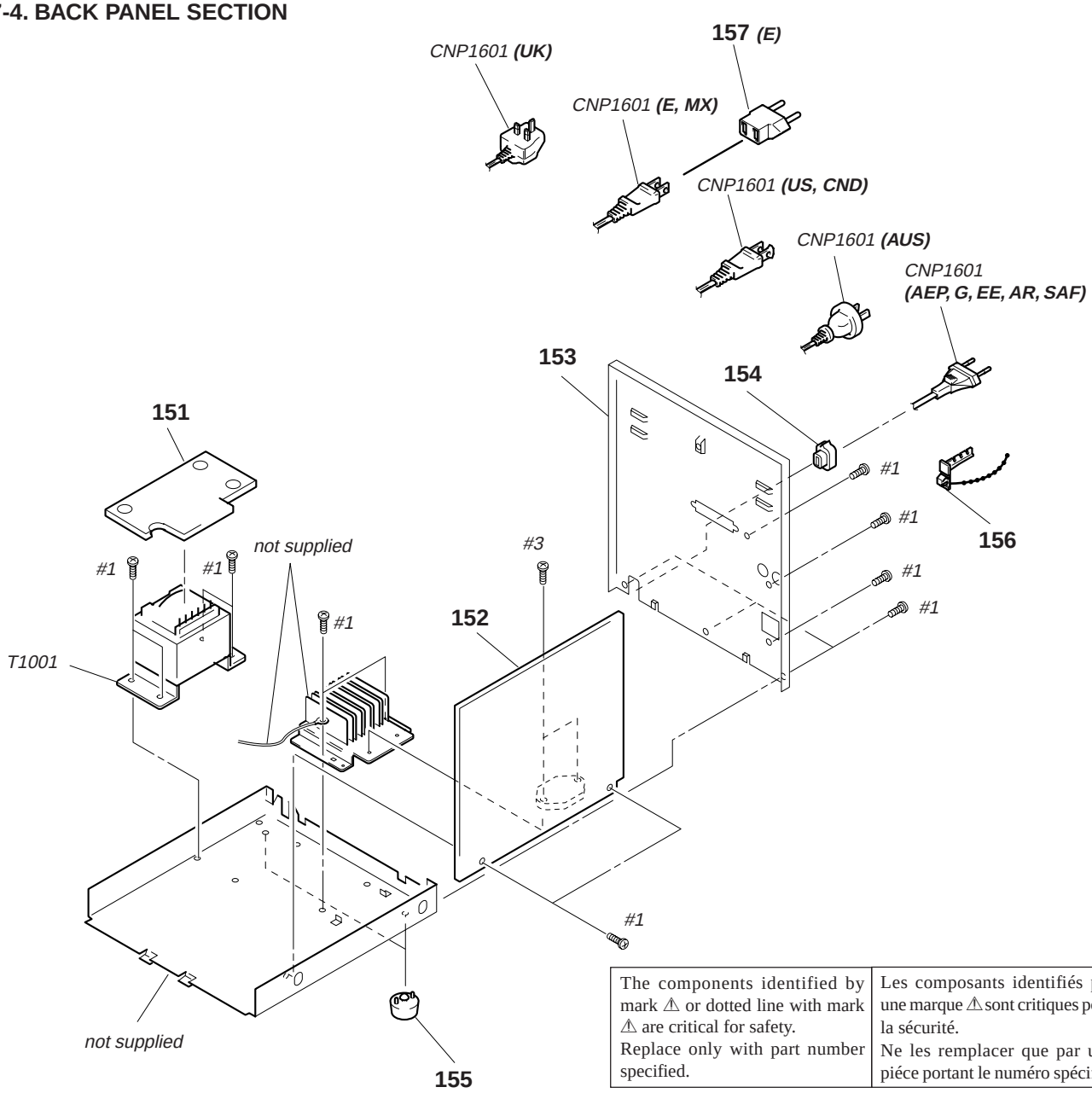
7-3. FRONT PANEL SECTION 2



Ref. No.	Part No.	Description	Remark
101	4-978-716-01	WINDOW (FL)	
102	4-978-715-01	WINDOW (3-CD)	
103	4-962-708-11	EMBLEM (4-A), SONY	
104	4-930-336-61	FOOT (FELT)	
105	4-978-723-01	BUTTON (POWER)(BLACK)	
105	4-989-282-01	BUTTON (POWER)(SILVER)	
106	X-4946-703-1	BUTTON (3-CD) ASSY	
107	X-4946-716-1	BUTTON (ENTER/NEXT) ASSY (BLACK)	
107	X-4948-252-1	BUTTON (ENTER/NEXT) ASSY (SILVER)	
108	X-4946-698-1	BUTTON (CD-PLAY) ASSY (BLACK)	
108	X-4948-251-1	BUTTON (CD-PLAY) ASSY (SILVER)	
109	X-4948-139-1	BUTTON (T/B) ASSY (BLACK)	

Ref. No.	Part No.	Description	Remark
109	X-4948-246-1	BUTTON (T/B) ASSY (SILVER)	
110	4-978-739-01	INDICATOR (CLIP)	
111	4-978-742-01	HOLDER (MULTI), LED	
112	X-4948-138-1	PANEL ASSY, FRONT (BLACK)	
112	X-4948-242-1	PANEL ASSY, FRONT (SILVER)	
113	4-978-824-21	BUTTON (MULTI)(SILVER)	
113	4-978-824-01	BUTTON (MULTI)(BLACK)	
114	4-989-402-11	PLATE (MULTI), ORNAMENTAL (SILVER)	
114	4-989-402-01	PLATE (MULTI), ORNAMENTAL (BLACK)	
115	4-978-828-01	KNOB, CURSOR	
116	4-978-858-01	PLATE, CURSOL ORNAMENTAL	
117	4-958-595-01	SPRING, COMPRESSION	

7-4. BACK PANEL SECTION

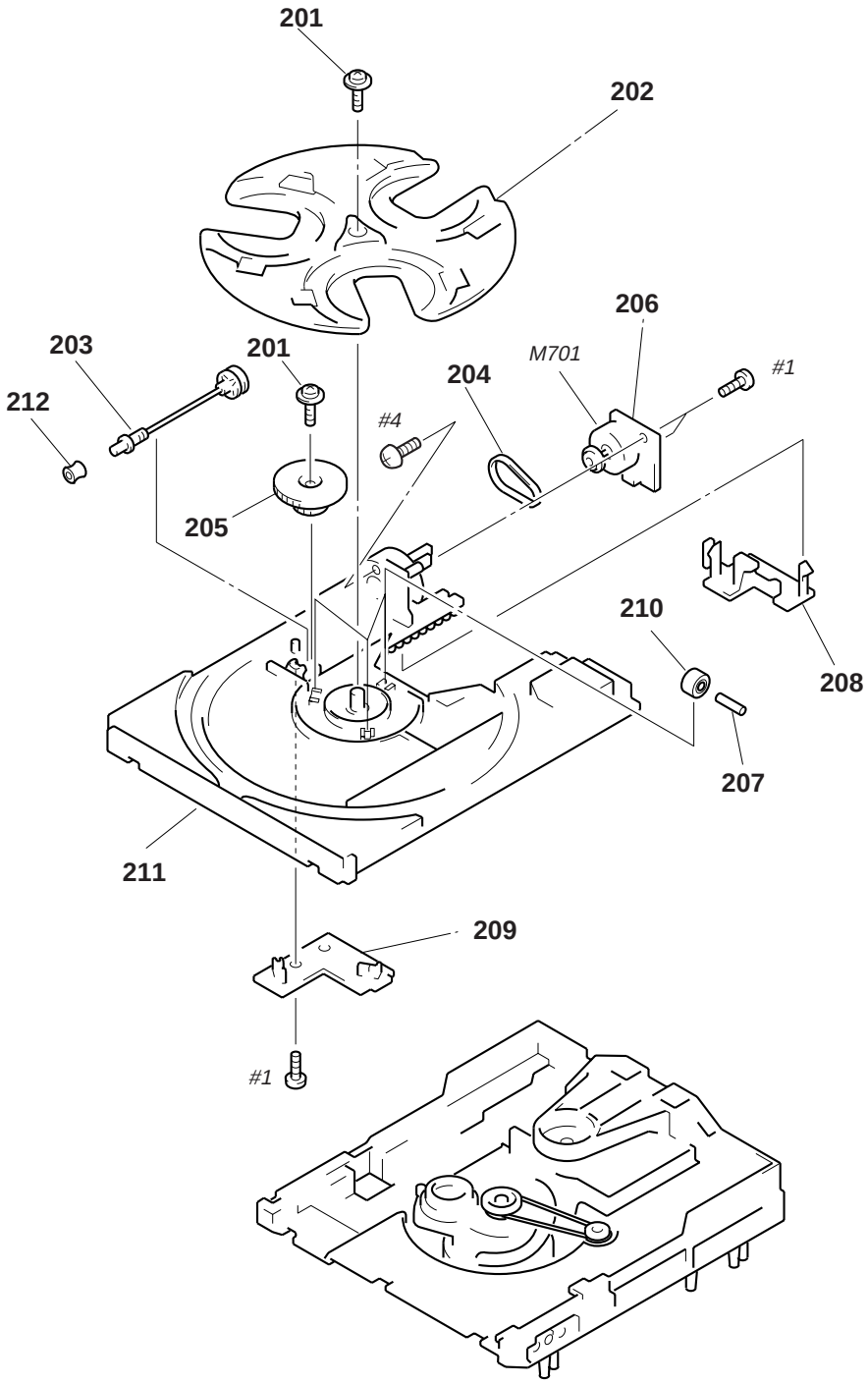


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 151	1-664-649-11	TRANSFORMER BOARD	
* 152	A-4392-597-A	MAIN BOARD, COMPLETE (GR3:E,MX,AR)	
* 152	A-4398-503-A	MAIN BOARD, COMPLETE (GR3:SAF)	
* 152	A-4392-605-A	MAIN BOARD, COMPLETE (RX30:US,CND)	
* 152	A-4392-614-A	MAIN BOARD, COMPLETE (RX30:AEP,UK)	
* 152	A-4392-618-A	MAIN BOARD, COMPLETE (RX30:G)	
* 152	A-4392-621-A	MAIN BOARD, COMPLETE (GR3:AUS)	
* 152	A-4392-764-A	MAIN BOARD, COMPLETE (RX30:EE)	
* 153	4-988-804-01	PANEL, BACK (GR3:E)	
* 153	4-988-804-11	PANEL, BACK (GR3:AUS)	
* 153	4-988-804-21	PANEL, BACK (GR3:MX)	
* 153	4-988-804-31	PANEL, BACK (GR3:AR)	
* 153	4-988-810-01	PANEL, BACK (RX30:US)	
* 153	4-988-810-11	PANEL, BACK (RX30:CND)	
* 153	4-988-811-01	PANEL, BACK (RX30:AEP)	
* 153	4-988-811-11	PANEL, BACK (RX30:G)	
* 153	4-988-811-21	PANEL, BACK (RX30:UK)	

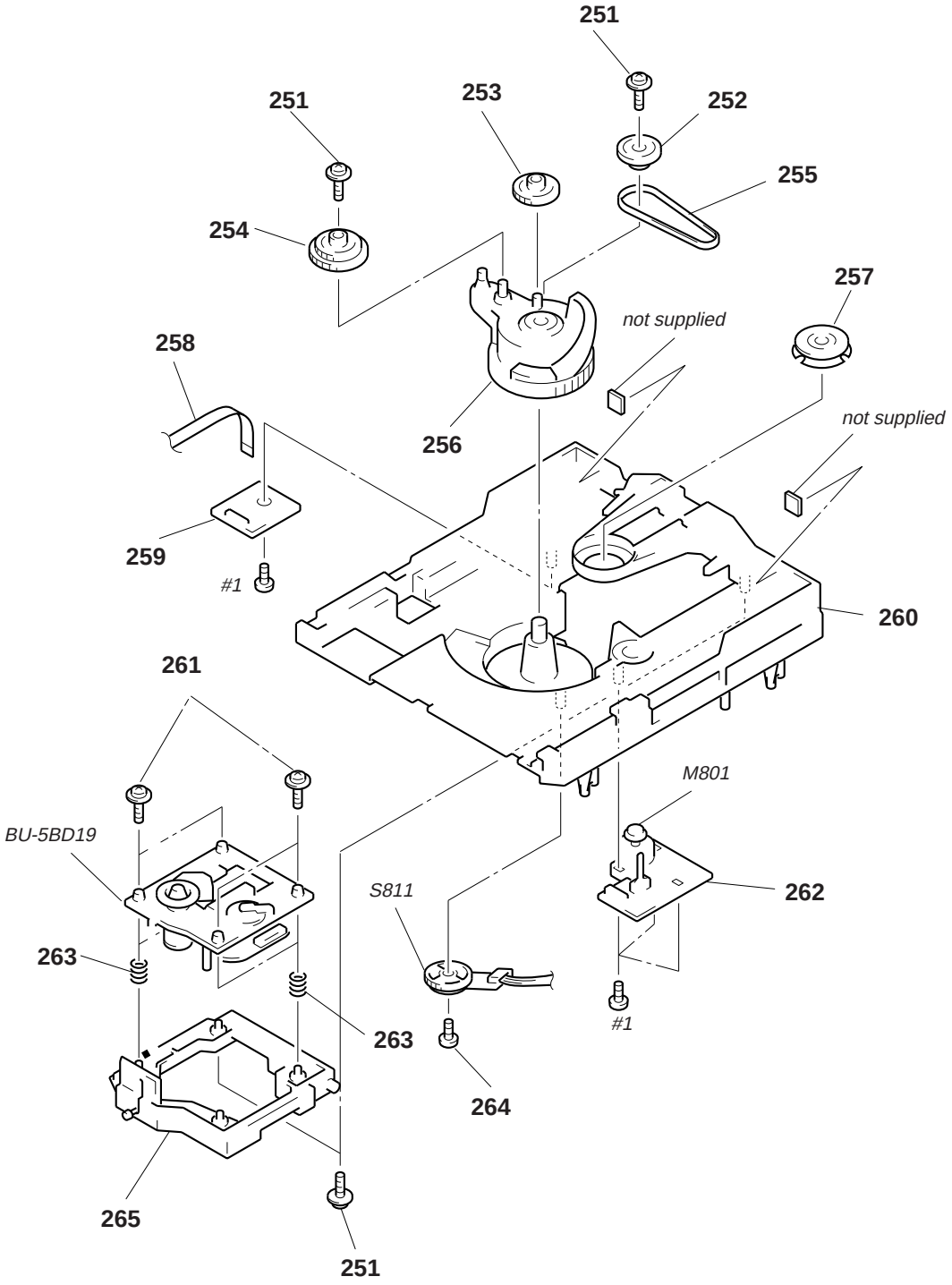
Ref. No.	Part No.	Description	Remark
* 153	4-988-811-31	PANEL, BACK (RX30:EE)	
* 153	4-988-804-41	PANEL, BACK (GR3:SAF)	
* 154	3-703-244-00	BUSHING (2104), CORD (EXCEPT E, MX)	
154	3-703-571-11	BUSHING (S)(4516), CORD (E, MX)	
155	4-965-822-01	FOOT	
156	4-956-370-12	BAND, PLUG FIXED (GR3:AUS/RX30:UK)	
⚠ 157	1-569-007-11	ADAPTOR, CONVERSION (E)	
⚠ CNP1601	1-782-315-11	CORD, POWER (E, MX)	
⚠ CNP1601	1-690-608-11	CORD, POWER (AUS)	
⚠ CNP1601	1-690-609-21	CORD, POWER (CND)	
⚠ CNP1601	1-777-070-11	CORD, POWER (US)	
⚠ CNP1601	1-777-071-11	CORD, POWER (AEP, G, EE, AR)	
⚠ CNP1601	1-575-651-11	CORD, POWER (SAF)	
⚠ CNP1601	1-777-512-11	CORD, POWER (UK)	
⚠ T1001	1-431-127-11	TRANSFORMER, POWER (GR3)	
⚠ T1001	1-431-128-11	TRANSFORMER, POWER (RX30;US,CND)	
⚠ T1001	1-431-129-11	TRANSFORMER, POWER (RX30:AEP,UK,G,EE)	

7-5. CD MECHANISM SECTION 1 (CDM38-5BD19)



Ref. No.	Part No.	Description	Remark
201	4-917-583-21	BRACKET, YOKE	
202	4-977-945-01	TRAY (TURN)	
203	X-4946-665-1	SHAFT ASSY, WORM	
204	4-977-943-01	BELT (TURN) (1.2)	
205	4-977-956-01	WHEEL, WORM	
* 206	1-658-577-11	MOTOR (TURN) BOARD	
207	X-4924-457-1	ROLLER ASSY	
208	4-977-941-01	BEARING (WORM)	
* 209	1-658-576-11	SENSOR BOARD	
210	4-934-376-01	SHAFT (ROLLER)	
211	4-977-944-01	TRAY (SLIDE)	
212	4-981-187-01	COLLAR (WORM)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

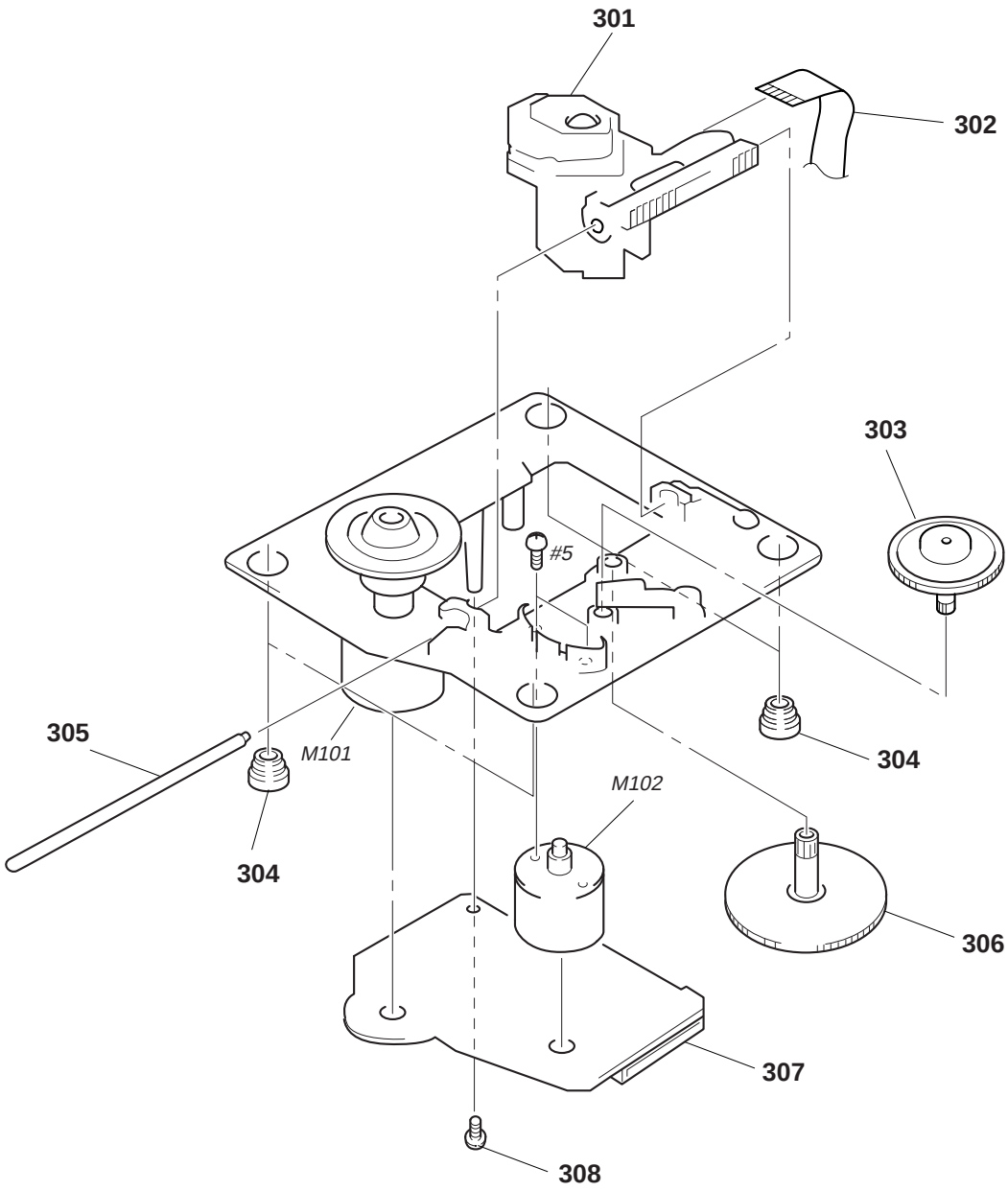
7-6. CD MECHANISM SECTION 2 (CDM38-5BD19)



Ref. No.	Part No.	Description	Remark
251	4-917-583-71	BRACKET, YOKE	
252	4-977-954-01	PULLEY (SL)	
253	4-977-953-01	GEAR (SL-A)	
254	4-977-955-01	GEAR (SL-B)	
255	4-977-942-01	BELT (SL) (1.4)	
256	X-4946-667-1	CAM ASSY, BU	
257	1-452-538-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 259	1-658-575-11	CONNECTOR BOARD	

Ref. No.	Part No.	Description	Remark
* 260	X-4946-668-1	CHASSIS (CDM) ASSY	
261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
263	4-982-447-01	SPRING (BU), COMPRESSION	
264	4-951-620-41	SCREW (2.6), +BVTP	
* 265	X-4946-666-1	HOLDER (BU) ASSY	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	

7-7. BASE UNIT SECTION (BU-5BD19)



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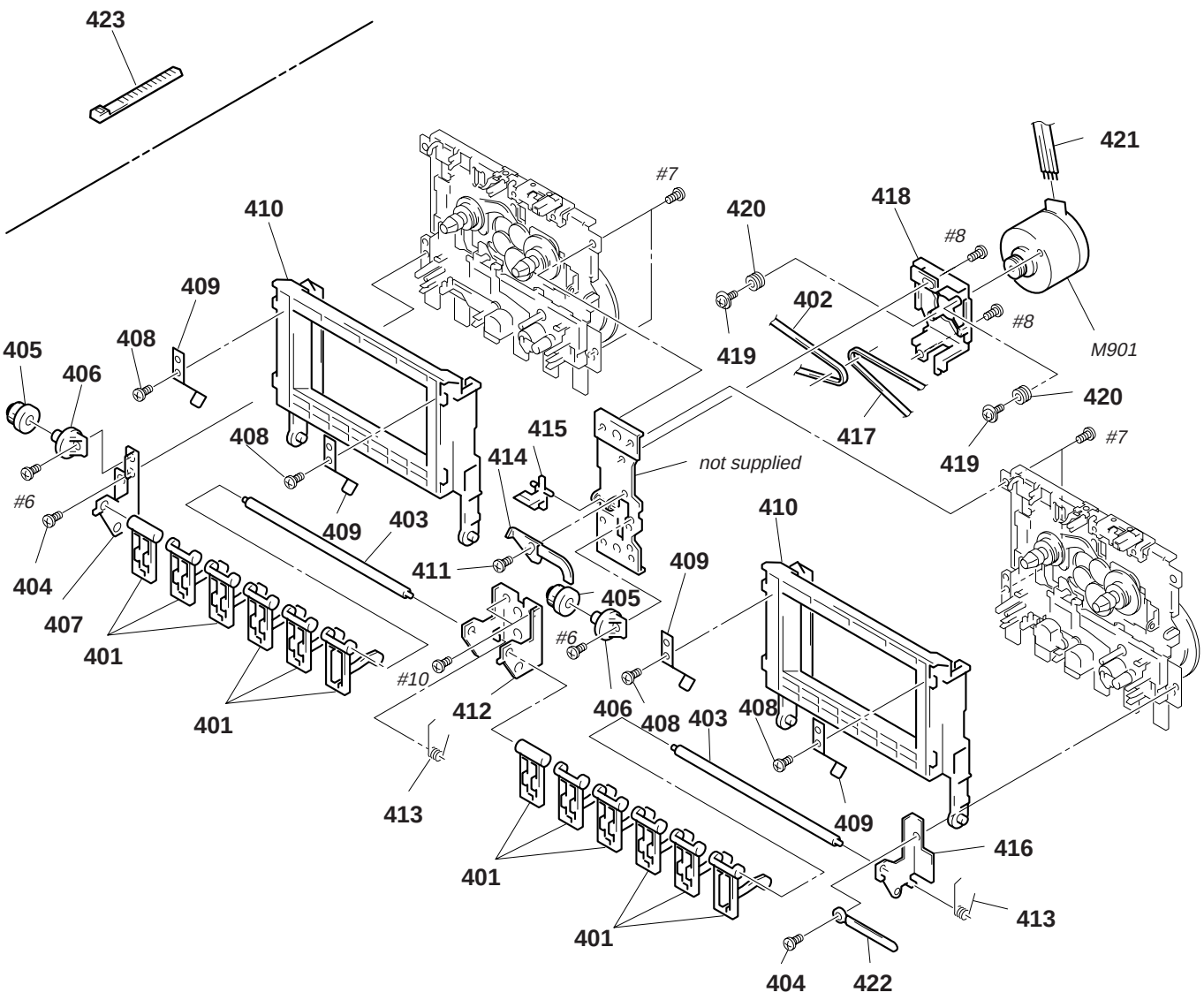
Ref. No.	Part No.	Description	Remark
⚠301	8-848-367-11	OPTICAL PICK-UP KSS-213B/K-N	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
303	4-917-567-01	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4673-402-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

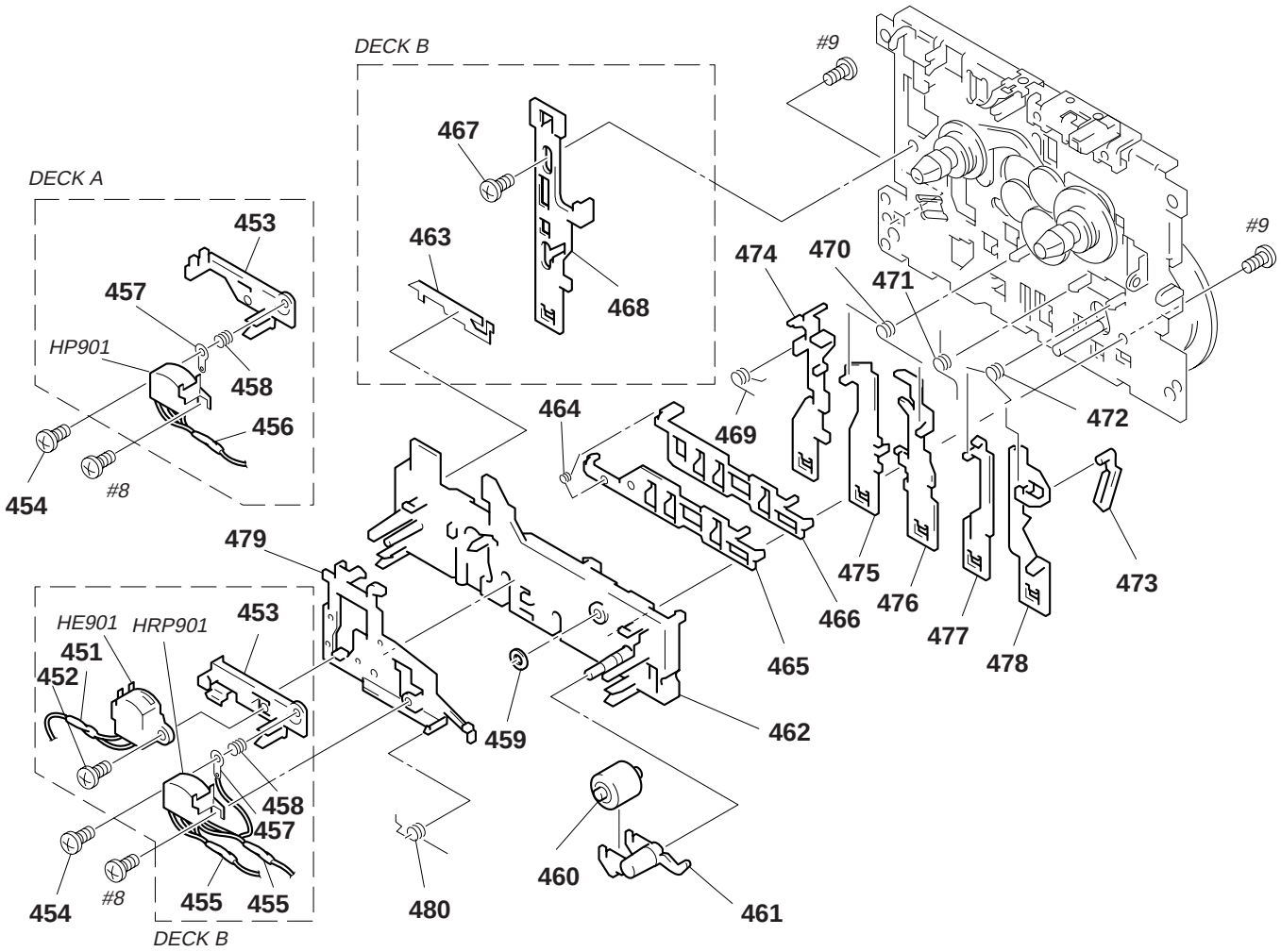
7-8. TC MECHANISM SECTION 1 (TCM-YSW47C24)



Ref. No.	Part No.	Description	Remark
401	3-931-802-01	BUTTON, LEVER	
402	3-918-734-01	BELT	
* 403	3-931-794-01	BUTTON, SHAFT	
404	3-918-741-01	SCREW	
405	3-931-807-01	DAMPER, GEAR	
406	3-931-806-01	GEAR, HOLDER	
* 407	3-931-793-01	BUTTON (L), HOLDER	
408	3-931-790-01	SCREW	
* 409	3-931-804-01	PLATE, KEEP	
410	3-931-803-01	CASE, CASSETTE	
411	3-931-791-01	SCREW	
412	3-931-809-01	BUTTON (S), HOLDER	

Ref. No.	Part No.	Description	Remark
413	3-931-805-01	SPRING	
* 414	3-369-927-01	ARM, CONNECT	
415	3-369-928-01	ARM, RELEASE	
* 416	3-931-792-01	BUTTON (R), HOLDER	
417	3-369-931-01	BELT	
* 418	3-918-742-01	HOLDER, MOTOR	
419	3-343-896-01	SCREW, MOTOR	
420	3-343-897-01	WASHER, RUBBER	
421	3-937-331-01	MOTOR, WIRE	
* 422	3-931-808-01	LUG, PLATE	
423	3-701-748-00	CLAMP	
M901	X-3372-231-1	MOTOR ASSY (REEL/CAPSTAN)	

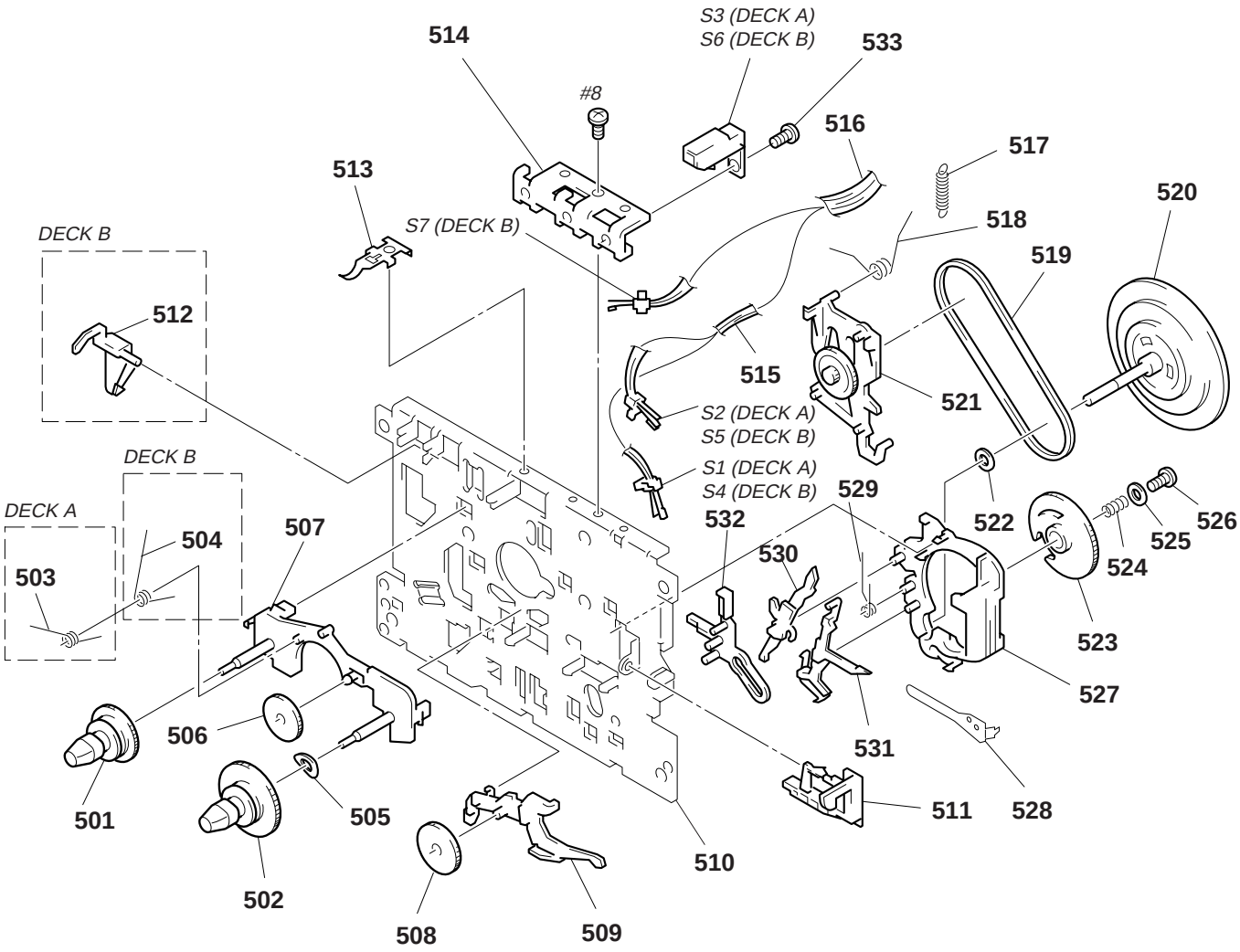
7-9. TC MECHANISM SECTION 2 (TCM-YSW47C24)



Ref. No.	Part No.	Description	Remark
451	1-500-322-11	HEAD, WIRE (E)	
452	3-931-789-01	SCREW	
453	1-500-319-11	HEAD, HOLDER (DECK B)	
453	3-362-986-01	HOLDER, HEAD (DECK A)	
454	3-363-229-01	SCREW	
455	1-500-320-11	HEAD, WIRE R/P (DECK B)	
456	1-500-321-11	HEAD, WIRE P.B (DECK A)	
457	3-390-817-01	LUG	
458	3-362-985-01	SPRING	
459	3-362-980-01	WASHER	
460	3-362-982-01	PINCH ROLLER	
461	3-362-981-01	PINCH ARM	
462	3-362-942-01	FRAME ASSY	
463	3-362-944-01	STOPPER, REC	
464	3-362-945-01	SPRING	
* 465	3-362-943-01	PLATE, FUNCTION	
* 466	3-362-946-01	LEVER, SW	

Ref. No.	Part No.	Description	Remark
467	3-362-958-01	SCREW	
* 468	3-362-947-01	LEVER, REC	
469	3-362-954-01	SPRING	
470	3-362-955-01	SPRING	
471	3-362-956-01	SPRING	
472	3-932-552-01	SPRING	
473	3-362-953-01	ARM, PAUSE	
* 474	3-362-948-01	LEVER, PLAY	
* 475	3-362-949-01	LEVER, REW	
* 476	3-362-950-01	LEVER, FF	
* 477	3-362-951-01	LEVER, SE	
* 478	3-362-952-01	LEVER, PAUSE	
* 479	3-362-984-01	HEAD (BASE)	
480	3-362-983-01	SPRING	
HE901	1-500-318-11	HEAD, E (ERASE)(DECK B)	
HP901	1-543-424-21	HEAD (PLAYBACK)(DECK A)	
HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK)(DECK B)	

7-10. TC MECHANISM SECTION 3 (TCM-YSW47C24)



Ref. No.	Part No.	Description	Remark
501	X-3363-611-1	REEL, S	
502	3-362-962-01	REEL ASSY, T	
503	3-372-120-01	SPRING	
504	3-918-735-01	SPRING	
505	3-932-553-01	PLATE SPRING BT	
506	3-362-965-01	IDLER, FF	
507	3-362-961-01	SPINDLE (BASE)	
508	3-362-960-01	PULLEY, IDLER	
509	3-362-959-01	ARM, IDLER	
* 510	3-362-941-01	CHASSIS	
511	3-362-968-01	LEVER, EJECT	
512	3-362-966-01	INTER LOCK	
513	3-918-744-01	SPRING, CASSETTE	
514	1-762-610-11	SWITCH, PLATE	
515	1-762-613-11	SWITCH, WIRE LEAF	
516	1-762-612-11	SWITCH, WIRE LEAF	
517	3-362-971-01	SPRING	
518	3-362-970-01	SPRING	
519	3-918-734-01	BELT	
520	3-369-921-01	FW ASSY	

Ref. No.	Part No.	Description	Remark
521	3-362-969-01	IDLER ASSY, PF	
522	3-918-736-01	WASHER	
523	X-3363-315-1	GEAR, CAM	
524	3-369-962-01	SPRING, COMPRESSION	
525	3-369-961-01	WASHER	
526	3-366-352-01	SCREW	
527	3-362-973-01	AS (BASE)	
528	3-362-978-01	SPRING, PLATE	
529	3-362-977-01	SPRING	
530	3-362-976-01	LEVER, CONTROL	
531	3-362-975-01	LEVER, SENSOR	
532	3-387-697-01	SENSOR	
533	3-918-741-01	SCREW	
S1	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK A)	
S2	1-571-745-11	SWITCH, LEAF (PLAY)(DECK A)	
S3	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK A)	
S4	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK B)	
S5	1-571-745-11	SWITCH, LEAF (PLAY)(DECK B)	
S6	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK B)	
S7	1-571-556-11	SWITCH, LEAF (REC)(DECK B)	

SECTION 8
ELECTRICAL PARTS LIST

BD

Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: µ , for example:
  uA...: µ A..., uPA...: µ PA..., uPB...: µ PB..., uPC...: µ PC..., uPD...: µ PD...
- CAPACITORS
  uF : µ F
- COILS
  uH : µ H
- Abbreviation
  CND : Canadian model
  EE : East European model
  MX : Mexican model
  AR : Argentine model
  AUS : Australian model
  SAF : South African model
  G : German model

Ref. No.	Part No.	Description			Remark
*	A-4673-402-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V
C102	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C107	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C118	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C120	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C131	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C132	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C133	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C134	1-164-346-11	CERAMIC CHIP	1uF		16V
C135	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C136	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C137	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C139	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C140	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C142	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C146	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C147	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C148	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C149	1-164-346-11	CERAMIC CHIP	1uF		16V
C153	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P			
CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P			
		< IC >			
IC101	8-752-069-56	IC CXA1782BQ			
IC102	8-759-291-06	IC BA6397FP			
IC103	8-752-372-94	IC CXD2507AQ			
IC104	8-759-185-29	IC PCM1710U-B			
		< MOTOR >			
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)			
M102	X-4917-504-1	MOTOR ASSY (SLED)			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
Q102	8-729-424-08	TRANSISTOR UN2111			
Q103	8-729-421-22	TRANSISTOR UN2211			
		< RESISTOR >			
R102	1-216-001-00	METAL CHIP	10	5%	1/10W
R103	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R104	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R105	1-216-093-00	METAL CHIP	68K	5%	1/10W
R106	1-216-093-00	METAL CHIP	68K	5%	1/10W
R107	1-216-093-00	METAL CHIP	68K	5%	1/10W
R108	1-216-093-00	METAL CHIP	68K	5%	1/10W
R109	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R112	1-216-083-00	METAL CHIP	27K	5%	1/10W
R113	1-216-083-00	METAL CHIP	27K	5%	1/10W
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R118	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R119	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R120	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R121	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R122	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R123	1-216-099-00	METAL CHIP	120K	5%	1/10W

BD **CD SW** **CONNECTOR** **HP**

Ref. No.	Part No.	Description			Remark
R124	1-216-091-00	METAL CHIP	56K	5%	1/10W
R125	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R126	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R127	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R128	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R129	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R130	1-216-079-00	METAL CHIP	18K	5%	1/10W
R131	1-216-079-00	METAL CHIP	18K	5%	1/10W
R132	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R133	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R134	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R135	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W
R137	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R138	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R139	1-216-033-00	METAL CHIP	220	5%	1/10W
R140	1-216-081-00	METAL CHIP	22K	5%	1/10W
R141	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R142	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R143	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R144	1-216-073-00	METAL CHIP	10K	5%	1/10W
R145	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R146	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R147	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R148	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R149	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R150	1-216-037-00	METAL CHIP	330	5%	1/10W
R151	1-216-037-00	METAL CHIP	330	5%	1/10W
R152	1-216-037-00	METAL CHIP	330	5%	1/10W
R153	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R154	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R156	1-216-085-00	METAL CHIP	33K	5%	1/10W
R157	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R158	1-216-001-00	METAL CHIP	10	5%	1/10W
		< VARIABLE RESISTOR >			
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K			
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K			
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K			
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)			

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*	1-664-648-11	CD SW BOARD				
		**********				
		< DIODE >				
D551	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)				
D552	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)				
D553	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)				
D554	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)				
D555	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)				
D556	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)				
D583	8-719-056-13	DIODE SML79423C-TP15 (▷II)				
		< RESISTOR >				
R501	1-249-401-11	CARBON	47	5%	1/4W	F
R502	1-249-403-11	CARBON	68	5%	1/4W	F
R503	1-247-807-31	CARBON	100	5%	1/4W	
R504	1-249-407-11	CARBON	150	5%	1/4W	F
R505	1-249-407-11	CARBON	150	5%	1/4W	F
R506	1-249-409-11	CARBON	220	5%	1/4W	F
R507	1-249-411-11	CARBON	330	5%	1/4W	
R508	1-249-413-11	CARBON	470	5%	1/4W	F
R551	1-249-403-11	CARBON	68	5%	1/4W	F
R552	1-249-403-11	CARBON	68	5%	1/4W	F
R553	1-249-403-11	CARBON	68	5%	1/4W	F
R554	1-249-403-11	CARBON	68	5%	1/4W	F
R555	1-249-403-11	CARBON	68	5%	1/4W	F
R556	1-249-403-11	CARBON	68	5%	1/4W	F
R583	1-249-403-11	CARBON	68	5%	1/4W	F
R584	1-249-403-11	CARBON	68	5%	1/4W	F
		< SWITCH >				
S500	1-762-196-21	SWITCH, TACT (POWER)				
S501	1-762-196-21	SWITCH, TACT (LOOP)				
S502	1-762-196-21	SWITCH, TACT (DISC SKIP, EX-CHANGE)				
S503	1-762-196-21	SWITCH, TACT (DISC 1)				
S504	1-762-196-21	SWITCH, TACT (DISC 2)				
S505	1-762-196-21	SWITCH, TACT (DISC 3)				
S506	1-762-196-21	SWITCH, TACT (⏏ OPEN/CLOSE)				
S507	1-762-196-21	SWITCH, TACT (■)				
S508	1-762-196-21	SWITCH, TACT (▷II)				

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*	1-658-575-11	CONNECTOR BOARD				
		**********				
		< CONNECTOR >				
* CN701	1-568-946-11	PIN, CONNECTOR 8P				
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P				
		< TRANSISTOR >				
Q701	8-729-900-80	TRANSISTOR DTC114ES				
		< RESISTOR >				
R703	1-249-435-11	CARBON	33K	5%	1/4W	
R704	1-249-429-11	CARBON	10K	5%	1/4W	
R705	1-249-417-11	CARBON	1K	5%	1/4W	F

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*	1-664-647-11	HP BOARD				
		********				
		< CAPACITOR >				
C519	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C520	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C521	1-162-294-31	CERAMIC	0.001uF	10%	50V	

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN503	1-506-468-11	PIN, CONNECTOR 3P			
		< JACK >			
J501	1-770-226-11	JACK (LARGE TYPE)(PHONES)			
**********					
*	A-4392-597-A	MAIN BOARD, COMPLETE (GR3:E,MX,AR)			
		**********			
*	A-4392-605-A	MAIN BOARD, COMPLETE (RX30:US,CND)			
		**********			
*	A-4392-614-A	MAIN BOARD, COMPLETE (RX30:AEP,UK)			
		**********			
*	A-4392-618-A	MAIN BOARD, COMPLETE (RX30:G)			
		**********			
*	A-4392-621-A	MAIN BOARD, COMPLETE (GR3:AUS)			
		**********			
*	A-4392-764-A	MAIN BOARD, COMPLETE (RX30:EE)			
		**********			
*	A-4398-503-A	MAIN BOARD, COMPLETE (GR3:SAF)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C201	1-126-961-11	ELECT	2.2uF	20%	50V
C202	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C203	1-126-925-11	ELECT	470uF	20%	10V
C204	1-162-282-31	CERAMIC	100PF	10%	50V
C205	1-162-282-31	CERAMIC	100PF	10%	50V
C251	1-126-961-11	ELECT	2.2uF	20%	50V
C252	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C300	1-162-282-31	CERAMIC	100PF	10%	50V
C301	1-162-290-31	CERAMIC	470PF	10%	50V
C302	1-136-157-00	FILM	0.022uF	5%	50V
C303	1-126-964-11	ELECT	10uF	20%	50V
C304	1-162-292-31	CERAMIC	680PF	10%	50V
C310	1-162-282-31	CERAMIC	100PF	10%	50V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C312	1-136-157-00	FILM	0.022uF	5%	50V
C313	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-934-11	ELECT	220uF	20%	16V
C321	1-130-479-00	MYLAR	0.0047uF	5%	50V
C322	1-126-960-11	ELECT	1uF	20%	50V
C323	1-126-963-11	ELECT	4.7uF	20%	50V
C324	1-136-165-00	FILM	0.1uF	5%	50V
C326	1-126-960-11	ELECT	1uF	20%	50V
C328	1-126-963-11	ELECT	4.7uF	20%	50V
C329	1-162-291-31	CERAMIC	560PF	10%	50V
C330	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C331	1-107-599-11	CERAMIC	27PF	5%	500V
C332	1-101-890-00	CERAMIC	75PF	5%	50V
C333	1-162-288-31	CERAMIC	330PF	10%	50V
C334	1-102-973-00	CERAMIC	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C335	1-162-286-31	CERAMIC	220PF	10%	50V
C336	1-162-286-31	CERAMIC	220PF	10%	50V
C340	1-126-961-11	ELECT	2.2uF	20%	50V
C351	1-130-478-00	MYLAR	0.0039uF	5%	50V
C352	1-130-478-00	MYLAR	0.0039uF	5%	50V
C353	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C354	1-130-482-00	MYLAR	0.0082uF	5%	50V
C355	1-126-961-11	ELECT	2.2uF	20%	50V
C356	1-130-487-00	MYLAR	0.022uF	5%	50V
C357	1-126-934-11	ELECT	220uF	20%	16V
C360	1-130-848-00	FILM	0.0082uF	5%	100V
C381	1-126-933-11	ELECT	100uF	20%	16V
C382	1-126-933-11	ELECT	100uF	20%	16V
C383	1-126-933-11	ELECT	100uF	20%	16V
C384	1-126-933-11	ELECT	100uF	20%	16V
C385	1-126-964-11	ELECT	10uF	20%	50V
C386	1-126-964-11	ELECT	10uF	20%	50V
C388	1-126-934-11	ELECT	220uF	20%	16V
C389	1-162-306-11	CERAMIC	0.01uF	20%	16V
C390	1-162-282-31	CERAMIC	100PF	10%	50V
C391	1-126-934-11	ELECT	220uF	20%	16V
C392	1-126-934-11	ELECT	220uF	20%	16V
C400	1-162-282-31	CERAMIC	100PF	10%	50V
C401	1-162-290-31	CERAMIC	470PF	10%	50V
C402	1-136-157-00	FILM	0.022uF	5%	50V
C403	1-126-964-11	ELECT	10uF	20%	50V
C404	1-162-292-31	CERAMIC	680PF	10%	50V
C410	1-162-282-31	CERAMIC	100PF	10%	50V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C412	1-136-157-00	FILM	0.022uF	5%	50V
C413	1-126-964-11	ELECT	10uF	20%	50V
C415	1-126-934-11	ELECT	220uF	20%	16V
C421	1-130-479-00	MYLAR	0.0047uF	5%	50V
C422	1-126-960-11	ELECT	1uF	20%	50V
C423	1-126-963-11	ELECT	4.7uF	20%	50V
C424	1-136-165-00	FILM	0.1uF	5%	50V
C426	1-126-960-11	ELECT	1uF	20%	50V
C428	1-126-963-11	ELECT	4.7uF	20%	50V
C429	1-162-291-31	CERAMIC	560PF	10%	50V
C430	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C431	1-107-599-11	CERAMIC	27PF	5%	500V
C432	1-101-890-00	CERAMIC	75PF	5%	50V
C433	1-162-288-31	CERAMIC	330PF	10%	50V
C434	1-102-973-00	CERAMIC	100PF	5%	50V
C435	1-162-286-31	CERAMIC	220PF	10%	50V
C452	1-164-159-11	CERAMIC	0.1uF		50V
C453	1-126-960-11	ELECT	1uF	20%	50V
C701	1-162-306-11	CERAMIC	0.01uF	20%	16V
C702	1-126-926-11	ELECT	1000uF	20%	10V
C703	1-126-964-11	ELECT	10uF	20%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-136-165-00	FILM	0.1uF	5%	50V
C706	1-126-965-11	ELECT	22uF	20%	50V
C707	1-162-205-31	CERAMIC	18PF	5%	50V
C708	1-162-205-31	CERAMIC	18PF	5%	50V
C710	1-162-306-11	CERAMIC	0.01uF	20%	16V
C713	1-162-306-11	CERAMIC	0.01uF	20%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C730	1-126-964-11	ELECT	10uF	20%	50V
C810	1-162-306-11	CERAMIC	0.01uF	20%	16V
C811	1-162-306-11	CERAMIC	0.01uF	20%	16V
C821	1-162-286-31	CERAMIC	220PF	10%	50V
					(RX30:AEP,UK,G,EE)
C871	1-162-286-31	CERAMIC	220PF	10%	50V
					(RX30:AEP,UK,G,EE)
C901	1-136-169-00	FILM	0.22uF	5%	50V
C902	1-136-169-00	FILM	0.22uF	5%	50V
C903	1-136-495-11	FILM	0.068uF	5%	50V
C904	1-136-495-11	FILM	0.068uF	5%	50V
C905	1-136-156-00	FILM	0.018uF	5%	50V
C906	1-136-156-00	FILM	0.018uF	5%	50V
C907	1-130-480-00	MYLAR	0.0056uF	5%	50V
C908	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C909	1-130-474-00	MYLAR	0.0018uF	5%	50V
C910	1-126-964-11	ELECT	10uF	20%	50V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-136-165-00	FILM	0.1uF	5%	50V
C913	1-136-165-00	FILM	0.1uF	5%	50V
C914	1-126-964-11	ELECT	10uF	20%	50V
C915	1-130-479-00	MYLAR	0.0047uF	5%	50V
C932	1-126-961-11	ELECT	2.2uF	20%	50V
C933	1-126-959-11	ELECT	0.47uF	20%	50V
C935	1-126-961-11	ELECT	2.2uF	20%	50V
C936	1-126-964-11	ELECT	10uF	20%	50V
C938	1-162-290-31	CERAMIC	470PF	10%	50V
C939	1-126-967-11	ELECT	47uF	20%	10V
C940	1-126-967-11	ELECT	47uF	20%	10V
C951	1-136-169-00	FILM	0.22uF	5%	50V
C952	1-136-169-00	FILM	0.22uF	5%	50V
C953	1-136-495-11	FILM	0.068uF	5%	50V
C954	1-136-495-11	FILM	0.068uF	5%	50V
C955	1-136-156-00	FILM	0.018uF	5%	50V
C956	1-136-156-00	FILM	0.018uF	5%	50V
C957	1-130-480-00	MYLAR	0.0056uF	5%	50V
C958	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C959	1-130-474-00	MYLAR	0.0018uF	5%	50V
C960	1-126-964-11	ELECT	10uF	20%	50V
C961	1-126-964-11	ELECT	10uF	20%	50V
C962	1-136-165-00	FILM	0.1uF	5%	50V
C963	1-136-165-00	FILM	0.1uF	5%	50V
C964	1-126-964-11	ELECT	10uF	20%	50V
C965	1-130-479-00	MYLAR	0.0047uF	5%	50V
C1001	1-126-974-11	ELECT	3300uF	20%	50V
C1002	1-126-974-11	ELECT	3300uF	20%	50V
C1004	1-126-935-11	ELECT	470uF	20%	6.3V
C1005	1-126-964-11	ELECT	10uF	20%	50V
C1006	1-126-933-11	ELECT	100uF	20%	10V
C1007	1-126-935-11	ELECT	470uF	20%	16V
C1008	1-126-933-11	ELECT	100uF	20%	16V
C1009	1-126-942-61	ELECT	1000uF	20%	25V
C1010	1-164-159-11	CERAMIC	0.1uF		50V
C1011	1-164-159-11	CERAMIC	0.1uF		50V
C1012	1-126-964-11	ELECT	10uF	20%	50V
C1013	1-126-916-11	ELECT	1000uF	20%	6.3V
C1014	1-126-964-11	ELECT	10uF	20%	50V
C1015	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C1016	1-126-925-11	ELECT	470uF	20%	10V
C1017	1-126-925-11	ELECT	470uF	20%	10V
C1020	1-126-964-11	ELECT	10uF	20%	50V
C1021	1-126-964-11	ELECT	10uF	20%	50V
C1022	1-126-968-11	ELECT	100uF	20%	50V
C1023	1-126-968-11	ELECT	100uF	20%	50V
C1024	1-126-943-11	ELECT	2200uF	20%	25V
C1025	1-126-943-11	ELECT	2200uF	20%	25V
C1028	1-136-157-00	FILM	0.022uF	5%	50V
C1029	1-136-157-00	FILM	0.022uF	5%	50V
C1201	1-126-963-11	ELECT	4.7uF	20%	50V
C1202	1-162-288-31	CERAMIC	330PF	10%	50V
C1203	1-162-286-31	CERAMIC	220PF	10%	50V
C1204	1-126-967-11	ELECT	47uF	20%	10V
C1205	1-126-967-11	ELECT	47uF	20%	50V
C1207	1-136-165-00	FILM	0.1uF	5%	50V
C1208	1-126-965-11	ELECT	22uF	20%	50V
C1210	1-136-495-11	FILM	0.068uF	5%	50V
C1211	1-136-495-11	FILM	0.068uF	5%	50V
C1220	1-126-933-11	ELECT	100uF	20%	10V
C1221	1-126-933-11	ELECT	100uF	20%	10V
C1222	1-126-923-11	ELECT	220uF	20%	10V
C1223	1-126-923-11	ELECT	220uF	20%	10V
C1224	1-126-961-11	ELECT	2.2uF	20%	50V
C1230	1-162-306-11	CERAMIC	0.01uF	20%	16V
					(RX30:AEP,UK,G,EE)
C1246	1-164-159-11	CERAMIC	0.1uF		50V
					(RX30:AEP,UK,G,EE)
C1248	1-136-495-11	FILM	0.068uF	5%	50V
					(RX30:AEP,UK,G,EE)
C1249	1-136-495-11	FILM	0.068uF	5%	50V
					(RX30:AEP,UK,G,EE)
C1250	1-162-306-11	CERAMIC	0.01uF	20%	16V
					(RX30:AEP,UK,G,EE)
C1251	1-126-963-11	ELECT	4.7uF	20%	50V
C1252	1-162-288-31	CERAMIC	330PF	10%	50V
C1253	1-162-286-31	CERAMIC	220PF	10%	50V
C1254	1-126-967-11	ELECT	47uF	20%	10V
C1255	1-126-967-11	ELECT	47uF	20%	50V
C1257	1-136-165-00	FILM	0.1uF	5%	50V
C1260	1-136-495-11	FILM	0.068uF	5%	50V
C1261	1-136-495-11	FILM	0.068uF	5%	50V
C1296	1-164-159-11	CERAMIC	0.1uF		50V
					(RX30:AEP,UK,G,EE)
C1298	1-136-495-11	FILM	0.068uF	5%	50V
					(RX30:AEP,UK,G,EE)
C1299	1-136-495-11	FILM	0.068uF	5%	50V
					(RX30:AEP,UK,G,EE)
C1300	1-162-306-11	CERAMIC	0.01uF	20%	16V
					(RX30:AEP,UK,G,EE)

< CONNECTOR >

	CN201	1-770-067-11	CONNECTOR, FFC/FPC 19P
*	CN202	1-568-936-11	PIN, CONNECTOR 9P
*	CN203	1-568-935-11	PIN, CONNECTOR 8P
*	CN250	1-568-832-11	SOCKET, CONNECTOR 13P (GR3/RX30:US,CND)
*	CN250	1-568-834-11	SOCKET, CONNECTOR 15P (RX30:AEP,UK,G,EE)
	CN301	1-564-506-11	PLUG, CONNECTOR 3P
*	CN302	1-564-509-11	PLUG, CONNECTOR 6P

Ref. No.	Part No.	Description	Remark
CN303	1-564-505-11	PLUG, CONNECTOR 2P	
* CN304	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
* CN305	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
* CN306	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
* CN307	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P	
* CN308	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P	
* CN701	1-568-834-11	SOCKET, CONNECTOR 15P	
		< DIODE >	
D201	8-719-987-63	DIODE 1N4148M	
D202	8-719-987-63	DIODE 1N4148M	
D381	8-719-024-99	DIODE 11ES2-NTA2B	
D382	8-719-024-99	DIODE 11ES2-NTA2B	
D383	8-719-024-99	DIODE 11ES2-NTA2B	
D384	8-719-987-63	DIODE 1N4148M	
D385	8-719-987-63	DIODE 1N4148M	
D386	8-719-024-99	DIODE 11ES2-NTA2B	
D387	8-719-024-99	DIODE 11ES2-NTA2B	
D450	8-719-987-63	DIODE 1N4148M	
D451	8-719-987-63	DIODE 1N4148M	
D452	8-719-987-63	DIODE 1N4148M	
D453	8-719-987-63	DIODE 1N4148M	
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	
D705	8-719-987-63	DIODE 1N4148M	
D706	8-719-024-99	DIODE 11ES2-NTA2B	
D707	8-719-987-63	DIODE 1N4148M	
D708	8-719-987-63	DIODE 1N4148M	
D901	8-719-987-63	DIODE 1N4148M	
D939	8-719-987-63	DIODE 1N4148M	
D940	8-719-987-63	DIODE 1N4148M	
D1001	8-719-024-99	DIODE 11ES2-NTA2B	
D1003	8-719-028-23	DIODE D3SBA20-4101	
D1007	8-719-987-63	DIODE 1N4148M	
D1008	8-719-001-42	DIODE UZL-11M1	
D1009	8-719-987-63	DIODE 1N4148M	
D1010	8-719-987-63	DIODE 1N4148M	
D1013	8-719-024-99	DIODE 11ES2-NTA2B	
D1014	8-719-024-99	DIODE 11ES2-NTA2B	
D1017	8-719-024-99	DIODE 11ES2-NTA2B	
D1023	8-719-934-18	DIODE HZS27-2L	
D1024	8-719-024-99	DIODE 11ES2-NTA2B	
D1025	8-719-024-99	DIODE 11ES2-NTA2B	
D1026	8-719-024-99	DIODE 11ES2-NTA2B	
D1027	8-719-024-99	DIODE 11ES2-NTA2B	
D1059	8-719-987-63	DIODE 1N4148M	
D1069	8-719-987-63	DIODE 1N4148M	
D1201	8-719-987-63	DIODE 1N4148M	
D1202	8-719-987-63	DIODE 1N4148M	
D1204	8-719-987-63	DIODE 1N4148M	
D1205	8-719-987-63	DIODE 1N4148M	
D1251	8-719-987-63	DIODE 1N4148M	
D1309	8-719-987-63	DIODE 1N4148M	
D1310	8-719-987-63	DIODE 1N4148M	

Ref. No.	Part No.	Description	Remark
		< IC >	
IC301	8-759-710-59	IC NJM4580D-D	
IC302	8-759-710-59	IC NJM4580D-D	
IC303	8-759-289-38	IC HA12195NT	
IC304	8-759-143-54	IC uPC1330HA	
IC701	8-759-459-27	IC TMP87CS64YF-6536	
IC702	8-759-165-80	IC PST600C-T	
IC802	8-759-000-48	IC MC14052BCP	
IC901	8-759-331-39	IC M62427FP	
IC1001	8-759-231-53	IC TA7805S	
IC1002	8-759-604-86	IC M5F7807L	
IC1003	8-759-604-86	IC M5F7807L	
IC1004	8-759-604-90	IC M5F7907L	
IC1201	8-749-920-09	IC STK-4152MK2K (GR3/RX30:AEP,UK,G,EE)	
IC1201	8-749-900-24	IC STK-4162MK2 (RX30:US,CND)	
IC1202	8-759-111-68	IC uPC1237HA	
		< JACK >	
J801	1-774-725-11	JACK, PIN 2P (VIDEO IN)	
J802	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (GR3/RX30:US,CND)	
		< COIL >	
L301	1-410-780-11	INDUCTOR 27mH	
L351	1-414-223-11	INDUCTOR 470uH	
L401	1-410-780-11	INDUCTOR 27mH	
L1201	1-420-872-00	COIL, AIR-CORE (RX30:AEP,UK,G,EE)	
L1251	1-420-872-00	COIL, AIR-CORE (RX30:AEP,UK,G,EE)	
		< TRANSISTOR >	
Q301	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q351	8-729-194-57	TRANSISTOR 2SC945-P	
Q352	8-729-194-57	TRANSISTOR 2SC945-P	
Q353	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q354	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q380	8-729-900-89	TRANSISTOR DTC144ES	
Q381	8-729-900-65	TRANSISTOR DTA144ES	
Q382	8-729-900-89	TRANSISTOR DTC144ES	
Q401	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q450	8-729-900-65	TRANSISTOR DTA144ES	
Q451	8-729-900-89	TRANSISTOR DTC144ES	
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q820	8-729-422-57	TRANSISTOR UN4111	
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q952	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q953	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q954	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1001	8-729-118-01	TRANSISTOR 2SB1116-K	
Q1002	8-729-900-36	TRANSISTOR DTC124ES	
Q1006	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q1011	8-729-021-82	TRANSISTOR 2SD2396K	
Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q1202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1204	8-729-900-63	TRANSISTOR DTA124ES	
Q1205	8-729-900-36	TRANSISTOR DTC124ES	

MAIN

Ref. No.	Part No.	Description			Remark
Q1206	8-729-900-80	TRANSISTOR	DTC114ES		
Q1207	8-729-422-57	TRANSISTOR	UN4111		
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
		< RESISTOR >			
R201	1-249-415-11	CARBON	680	5%	1/4W F
R202	1-249-435-11	CARBON	33K	5%	1/4W
R203	1-249-425-11	CARBON	4.7K	5%	1/4W F
R208	1-249-425-11	CARBON	4.7K	5%	1/4W F
R251	1-249-415-11	CARBON	680	5%	1/4W F
R252	1-249-435-11	CARBON	33K	5%	1/4W
R301	1-247-889-00	CARBON	270K	5%	1/4W
R302	1-249-404-00	CARBON	82	5%	1/4W F
R303	1-247-882-11	CARBON	130K	5%	1/4W
R304	1-247-850-11	CARBON	6.2K	5%	1/4W
R311	1-247-889-00	CARBON	270K	5%	1/4W
R312	1-249-404-00	CARBON	82	5%	1/4W F
R313	1-247-882-11	CARBON	130K	5%	1/4W
R314	1-247-850-11	CARBON	6.2K	5%	1/4W
R315	1-249-433-11	CARBON	22K	5%	1/4W
R320	1-249-432-11	CARBON	18K	5%	1/4W
R321	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-431-11	CARBON	15K	5%	1/4W
R323	1-249-432-11	CARBON	18K	5%	1/4W
R324	1-249-417-11	CARBON	1K	5%	1/4W F
R325	1-249-421-11	CARBON	2.2K	5%	1/4W F
R326	1-249-428-11	CARBON	8.2K	5%	1/4W F
R327	1-247-840-00	CARBON	2.4K	5%	1/4W
R328	1-249-433-11	CARBON	22K	5%	1/4W
R329	1-249-417-11	CARBON	1K	5%	1/4W F
R331	1-249-430-11	CARBON	12K	5%	1/4W
R351	1-249-434-11	CARBON	27K	5%	1/4W
R352	1-249-434-11	CARBON	27K	5%	1/4W
⚠R353	1-217-641-00	FUSIBLE	4.7	5%	1/4W F
⚠R354	1-217-641-00	FUSIBLE	4.7	5%	1/4W F
R355	1-249-429-11	CARBON	10K	5%	1/4W
R381	1-249-413-11	CARBON	470	5%	1/4W F
R382	1-249-413-11	CARBON	470	5%	1/4W F
R383	1-249-413-11	CARBON	470	5%	1/4W F
R384	1-249-413-11	CARBON	470	5%	1/4W F
R387	1-249-417-11	CARBON	1K	5%	1/4W F
R388	1-249-429-11	CARBON	10K	5%	1/4W
R390	1-249-417-11	CARBON	1K	5%	1/4W F
R401	1-247-889-00	CARBON	270K	5%	1/4W
R402	1-249-404-00	CARBON	82	5%	1/4W F
R403	1-247-882-11	CARBON	130K	5%	1/4W
R404	1-247-850-11	CARBON	6.2K	5%	1/4W
R411	1-247-889-00	CARBON	270K	5%	1/4W
R412	1-249-404-00	CARBON	82	5%	1/4W F
R413	1-247-882-11	CARBON	130K	5%	1/4W
R414	1-247-850-11	CARBON	6.2K	5%	1/4W
R415	1-249-433-11	CARBON	22K	5%	1/4W
R421	1-249-429-11	CARBON	10K	5%	1/4W
R422	1-249-431-11	CARBON	15K	5%	1/4W
R423	1-249-432-11	CARBON	18K	5%	1/4W
R424	1-249-417-11	CARBON	1K	5%	1/4W F
R425	1-249-421-11	CARBON	2.2K	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R426	1-249-428-11	CARBON	8.2K	5%	1/4W F
R427	1-247-840-00	CARBON	2.4K	5%	1/4W
R428	1-249-433-11	CARBON	22K	5%	1/4W
R429	1-249-417-11	CARBON	1K	5%	1/4W F
R431	1-249-430-11	CARBON	12K	5%	1/4W
R450	1-249-429-11	CARBON	10K	5%	1/4W
R451	1-249-429-11	CARBON	10K	5%	1/4W
R452	1-249-429-11	CARBON	10K	5%	1/4W
R453	1-249-429-11	CARBON	10K	5%	1/4W
R454	1-249-429-11	CARBON	10K	5%	1/4W
R455	1-249-429-11	CARBON	10K	5%	1/4W
R456	1-249-429-11	CARBON	10K	5%	1/4W
R457	1-247-864-11	CARBON	24K	5%	1/4W
R458	1-249-429-11	CARBON	10K	5%	1/4W
R459	1-249-440-11	CARBON	82K	5%	1/4W
R460	1-247-862-11	CARBON	20K	5%	1/4W
R461	1-249-425-11	CARBON	4.7K	5%	1/4W F
R462	1-249-425-11	CARBON	4.7K	5%	1/4W F
R463	1-249-429-11	CARBON	10K	5%	1/4W
R464	1-249-429-11	CARBON	10K	5%	1/4W
R701	1-249-429-11	CARBON	10K	5%	1/4W
R702	1-249-437-11	CARBON	47K	5%	1/4W
R703	1-249-437-11	CARBON	47K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W
R705	1-249-429-11	CARBON	10K	5%	1/4W
R706	1-249-429-11	CARBON	10K	5%	1/4W
R708	1-249-415-11	CARBON	680	5%	1/4W F
R709	1-249-429-11	CARBON	10K	5%	1/4W
R712	1-249-429-11	CARBON	10K	5%	1/4W
R713	1-249-429-11	CARBON	10K	5%	1/4W
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-429-11	CARBON	10K	5%	1/4W
R716	1-247-807-31	CARBON	100	5%	1/4W
R717	1-247-807-31	CARBON	100	5%	1/4W
R718	1-247-807-31	CARBON	100	5%	1/4W
R719	1-247-807-31	CARBON	100	5%	1/4W
R720	1-247-807-31	CARBON	100	5%	1/4W
R721	1-247-807-31	CARBON	100	5%	1/4W
R724	1-247-807-31	CARBON	100	5%	1/4W
R725	1-247-807-31	CARBON	100	5%	1/4W
R726	1-247-807-31	CARBON	100	5%	1/4W
R727	1-247-807-31	CARBON	100	5%	1/4W
R728	1-247-807-31	CARBON	100	5%	1/4W
R729	1-247-807-31	CARBON	100	5%	1/4W
R730	1-247-807-31	CARBON	100	5%	1/4W
R731	1-247-807-31	CARBON	100	5%	1/4W
R732	1-247-807-31	CARBON	100	5%	1/4W
R733	1-247-807-31	CARBON	100	5%	1/4W
R734	1-247-807-31	CARBON	100	5%	1/4W
R735	1-247-807-31	CARBON	100	5%	1/4W
R736	1-247-807-31	CARBON	100	5%	1/4W
R737	1-247-807-31	CARBON	100	5%	1/4W
R738	1-247-843-11	CARBON	3.3K	5%	1/4W
			(GR3/RX30:US,CND,AEP,UK,G)		
R738	1-249-427-11	CARBON	6.8K	5%	1/4W F
					(RX30:EE)
R739	1-249-429-11	CARBON	10K	5%	1/4W
			(GR3/RX30:US,CND,AEP,UK,G)		

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Replace only with part number specified.

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Ref. No.	Part No.	Description			Remark
R739	1-249-435-11	CARBON	33K	5%	1/4W (RX30:EE)
R740	1-249-427-11	CARBON	6.8K	5%	1/4W F (RX30:G)
R740	1-249-433-11	CARBON	22K	5%	1/4W (GR3:AUS)
R740	1-249-429-11	CARBON	10K	5%	1/4W (RX30:AEP,UK)
R740	1-249-435-11	CARBON	33K	5%	1/4W (RX30:EE)
R740	1-249-425-11	CARBON	4.7K	5%	1/4W F (GR3:E,SAF,MX,AR)
R741	1-249-433-11	CARBON	22K	5%	1/4W (GR3:AUS)
R741	1-247-843-11	CARBON	3.3K	5%	1/4W (RX30:AEP,UK,G)
R741	1-249-427-11	CARBON	6.8K	5%	1/4W F (GR3:E,SAF,MX,AR/RX30:EE)
R742	1-247-807-31	CARBON	100	5%	1/4W
R743	1-247-807-31	CARBON	100	5%	1/4W
R753	1-247-807-31	CARBON	100	5%	1/4W
R762	1-249-429-11	CARBON	10K	5%	1/4W
R763	1-249-429-11	CARBON	10K	5%	1/4W
R764	1-249-429-11	CARBON	10K	5%	1/4W
R771	1-249-429-11	CARBON	10K	5%	1/4W
R772	1-249-429-11	CARBON	10K	5%	1/4W
R773	1-249-429-11	CARBON	10K	5%	1/4W
R821	1-249-417-11	CARBON	1K	5%	1/4W F
R822	1-249-441-11	CARBON	100K	5%	1/4W
R825	1-247-887-00	CARBON	220K	5%	1/4W
R826	1-249-441-11	CARBON	100K	5%	1/4W
R848	1-249-439-11	CARBON	68K	5%	1/4W (GR3/RX30:US,CND)
R849	1-249-439-11	CARBON	68K	5%	1/4W (GR3/RX30:US,CND)
R850	1-249-429-11	CARBON	10K	5%	1/4W (GR3/RX30:US,CND)
R871	1-249-417-11	CARBON	1K	5%	1/4W F
R872	1-249-441-11	CARBON	100K	5%	1/4W
R901	1-249-425-11	CARBON	4.7K	5%	1/4W F
R902	1-249-425-11	CARBON	4.7K	5%	1/4W F
R904	1-249-431-11	CARBON	15K	5%	1/4W
R905	1-249-441-11	CARBON	100K	5%	1/4W
R906	1-247-895-00	CARBON	470K	5%	1/4W
R907	1-249-440-11	CARBON	82K	5%	1/4W
R908	1-249-433-11	CARBON	22K	5%	1/4W
R909	1-249-419-11	CARBON	1.5K	5%	1/4W F
R910	1-249-429-11	CARBON	10K	5%	1/4W
R911	1-249-421-11	CARBON	2.2K	5%	1/4W F
R912	1-249-441-11	CARBON	100K	5%	1/4W
R913	1-249-429-11	CARBON	10K	5%	1/4W
R914	1-249-437-11	CARBON	47K	5%	1/4W
R920	1-249-441-11	CARBON	100K	5%	1/4W
R921	1-249-418-11	CARBON	1.2K	5%	1/4W F
R922	1-249-429-11	CARBON	10K	5%	1/4W
R923	1-247-903-00	CARBON	1M	5%	1/4W
R938	1-247-807-31	CARBON	100	5%	1/4W
R940	1-249-429-11	CARBON	10K	5%	1/4W
R941	1-249-429-11	CARBON	10K	5%	1/4W
R942	1-249-429-11	CARBON	10K	5%	1/4W
R951	1-249-425-11	CARBON	4.7K	5%	1/4W F
R952	1-249-425-11	CARBON	4.7K	5%	1/4W F
R954	1-249-431-11	CARBON	15K	5%	1/4W
R955	1-249-441-11	CARBON	100K	5%	1/4W
R956	1-247-895-00	CARBON	470K	5%	1/4W
R957	1-249-440-11	CARBON	82K	5%	1/4W
R958	1-249-433-11	CARBON	22K	5%	1/4W
R959	1-249-419-11	CARBON	1.5K	5%	1/4W F
R960	1-249-429-11	CARBON	10K	5%	1/4W
R961	1-249-421-11	CARBON	2.2K	5%	1/4W F
R962	1-249-441-11	CARBON	100K	5%	1/4W
R963	1-249-429-11	CARBON	10K	5%	1/4W
R964	1-249-437-11	CARBON	47K	5%	1/4W
R970	1-247-903-00	CARBON	1M	5%	1/4W
R973	1-247-903-00	CARBON	1M	5%	1/4W
R1001	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1002	1-249-409-11	CARBON	220	5%	1/4W F
R1011	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1023	1-249-417-11	CARBON	1K	5%	1/4W F
R1201	1-249-417-11	CARBON	1K	5%	1/4W F
R1202	1-249-437-11	CARBON	47K	5%	1/4W
R1203	1-249-413-11	CARBON	470	5%	1/4W F
R1204	1-249-437-11	CARBON	47K	5%	1/4W
R1205	1-260-103-11	CARBON	2.2K	5%	1/2W
R1207	1-260-103-11	CARBON	2.2K	5%	1/2W
⚠R1210	1-208-602-11	WIREWOUND	0.22	10%	2W F
R1211	1-249-417-11	CARBON	1K	5%	1/4W F
R1212	1-249-431-11	CARBON	15K	5%	1/4W
R1213	1-249-441-11	CARBON	100K	5%	1/4W
R1214	1-260-099-11	CARBON	1K	5%	1/2W
R1217	1-260-099-11	CARBON	1K	5%	1/2W
R1218	1-260-076-11	CARBON	10	5%	1/2W
R1220	1-249-389-11	CARBON	4.7	5%	1/4W F (RX30:AEP,UK,G,EE)
R1221	1-249-389-11	CARBON	4.7	5%	1/4W F (RX30:AEP,UK,G,EE)
R1222	1-249-409-11	CARBON	220	5%	1/4W F
R1223	1-249-409-11	CARBON	220	5%	1/4W F
R1224	1-249-429-11	CARBON	10K	5%	1/4W
R1225	1-249-429-11	CARBON	10K	5%	1/4W
⚠R1226	1-215-868-00	METAL OXIDE	680	5%	1W F
R1227	1-249-429-11	CARBON	10K	5%	1/4W
R1228	1-247-891-00	CARBON	330K	5%	1/4W
R1229	1-249-429-11	CARBON	10K	5%	1/4W
R1230	1-249-429-11	CARBON	10K	5%	1/4W
R1231	1-249-417-11	CARBON	1K	5%	1/4W F
R1233	1-249-426-11	CARBON	5.6K	5%	1/4W (GR3/RX30:AEP,UK,G,EE)
R1233	1-249-427-11	CARBON	6.8K	5%	1/4W F (RX30:US,CND)
R1234	1-249-426-11	CARBON	5.6K	5%	1/4W (GR3/RX30:AEP,UK,G,EE)
R1234	1-249-427-11	CARBON	6.8K	5%	1/4W F (RX30:US,CND)
R1235	1-249-435-11	CARBON	33K	5%	1/4W
R1236	1-249-441-11	CARBON	100K	5%	1/4W
R1237	1-249-429-11	CARBON	10K	5%	1/4W
R1240	1-249-438-11	CARBON	56K	5%	1/4W
R1241	1-249-397-11	CARBON	22	5%	1/4W F

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MAIN | MOTOR (SLIDE) | MOTOR (TURN)

Ref. No.	Part No.	Description			Remark
R1242	1-249-429-11	CARBON	10K	5% 1/4W	
R1243	1-249-383-11	CARBON	1.5	5% 1/6W	F
R1245	1-249-433-11	CARBON	22K	5% 1/4W	
R1249	1-249-389-11	CARBON	4.7	5% 1/4W	F (RX30:AEP,UK,G,EE)
R1250	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R1251	1-249-417-11	CARBON	1K	5% 1/4W	F
R1252	1-249-437-11	CARBON	47K	5% 1/4W	
R1253	1-249-413-11	CARBON	470	5% 1/4W	F
R1254	1-249-437-11	CARBON	47K	5% 1/4W	
R1255	1-260-103-11	CARBON	2.2K	5% 1/2W	
R1257	1-260-103-11	CARBON	2.2K	5% 1/2W	
⚠R1260	1-208-602-11	WIREWOUND	0.22	10% 2W	F
R1261	1-249-417-11	CARBON	1K	5% 1/4W	F
R1262	1-249-431-11	CARBON	15K	5% 1/4W	
R1263	1-249-441-11	CARBON	100K	5% 1/4W	
R1268	1-260-076-11	CARBON	10	5% 1/2W	
R1270	1-249-389-11	CARBON	4.7	5% 1/4W	F (RX30:AEP,UK,G,EE)
R1271	1-249-389-11	CARBON	4.7	5% 1/4W	F (RX30:AEP,UK,G,EE)
R1272	1-249-409-11	CARBON	220	5% 1/4W	F
R1273	1-249-409-11	CARBON	220	5% 1/4W	F
R1290	1-249-437-11	CARBON	47K	5% 1/4W	
R1295	1-249-433-11	CARBON	22K	5% 1/4W	
R1299	1-249-389-11	CARBON	4.7	5% 1/4W	F (RX30:AEP,UK,G,EE)
R1303	1-249-427-11	CARBON	6.8K	5% 1/4W	F (GR3/RX30:AEP,UK,G,EE)
R1303	1-249-428-11	CARBON	8.2K	5% 1/4W	F (RX30:US,CND)
R1304	1-249-427-11	CARBON	6.8K	5% 1/4W	F (GR3/RX30:AEP,UK,G,EE)
R1304	1-249-428-11	CARBON	8.2K	5% 1/4W	F (RX30:US,CND)
		< VARIABLE RESISTOR >			
RV301	1-238-600-11	RES, ADJ, CARBON 10K			
RV302	1-238-600-11	RES, ADJ, CARBON 10K			
RV303	1-238-600-11	RES, ADJ, CARBON 10K			
RV304	1-238-603-11	RES, ADJ, CARBON 100K			
RV380	1-238-599-11	RES, ADJ, CARBON 4.7K			
RV401	1-238-600-11	RES, ADJ, CARBON 10K			
RV402	1-238-600-11	RES, ADJ, CARBON 10K			
RV403	1-238-600-11	RES, ADJ, CARBON 10K			
RV404	1-238-603-11	RES, ADJ, CARBON 100K			
		< RELAY >			
RY1201	1-515-920-11	RELAY (24V)			
		< TRANSFORMER >			
T350	1-433-349-11	TRANSFORMER, BIAS OSCILLATION			
		< TERMINAL >			
TM1201	1-537-240-31	TERMINAL BOARD (CHECKER PIN)(SPEAKER)			(GR3/RX30:US,CND)
TM1201	1-537-801-11	TERMINAL BOARD (SPEAKER)			(RX30:AEP,UK,G,EE)

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X701	1-579-175-11	VIBRATOR, CERAMIC (10MHz)			
X702	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)			
**********					
*	1-658-578-11	MOTOR (SLIDE) BOARD			
		**********			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C804	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C805	1-126-964-11	ELECT	10uF	20% 50V	
		< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
		< DIODE >			
D801	8-719-010-43	DIODE UZ-5.6BSC			
D804	8-719-987-63	DIODE 1N4148M			
D805	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC801	8-759-274-09	IC BA6286N			
		< MOTOR >			
M801	A-4672-004-A	MOTOR ASSY (SLIDE)			
		< RESISTOR >			
R801	1-249-401-11	CARBON	47	5% 1/4W	F
		< SWITCH >			
S801	1-762-527-11	SWITCH, ROTARY (OPEN/CLOSE)			
**********					
*	1-658-577-11	MOTOR (TURN) BOARD			
		**********			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C702	1-126-964-11	ELECT	10uF	20% 50V	
C705	1-162-306-11	CERAMIC	0.01uF	20% 16V	
		< CONNECTOR >			
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P			
CN704	1-506-469-11	PIN, CONNECTOR 4P			
		< DIODE >			
D701	8-719-010-23	DIODE UZ-3.6BSB			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< MOTOR >			
M701	A-4672-004-A	MOTOR ASSY (TURN)			

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Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R706	1-249-411-11	CARBON	330	5%	1/4W
R707	1-249-401-11	CARBON	47	5%	1/4W F
**********					
*	A-4392-601-A	PANEL BOARD, COMPLETE (EXCEPT SAF)			
		**********			
*	A-4398-500-A	PANEL BOARD, COMPLETE (SAF)			
		**********			
*	4-932-810-11	CUSHION (FL)			
*	4-978-168-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C501	1-162-282-31	CERAMIC	100PF	10%	50V
C502	1-162-282-31	CERAMIC	100PF	10%	50V
C503	1-162-282-31	CERAMIC	100PF	10%	50V
C504	1-162-282-31	CERAMIC	100PF	10%	50V
C505	1-162-282-31	CERAMIC	100PF	10%	50V
C506	1-162-282-31	CERAMIC	100PF	10%	50V
C507	1-162-282-31	CERAMIC	100PF	10%	50V
C508	1-162-282-31	CERAMIC	100PF	10%	50V
C509	1-162-282-31	CERAMIC	100PF	10%	50V
C510	1-162-282-31	CERAMIC	100PF	10%	50V
C511	1-162-282-31	CERAMIC	100PF	10%	50V
C512	1-162-282-31	CERAMIC	100PF	10%	50V
C513	1-162-294-31	CERAMIC	0.001uF	10%	50V
C514	1-126-967-11	ELECT	47uF	20%	50V
C515	1-162-306-11	CERAMIC	0.01uF	20%	16V
C516	1-124-584-00	ELECT	100uF	20%	10V
C517	1-162-306-11	CERAMIC	0.01uF	20%	16V
C522	1-162-306-11	CERAMIC	0.01uF	20%	16V
C523	1-162-306-11	CERAMIC	0.01uF	20%	16V
C524	1-162-294-31	CERAMIC	0.001uF	10%	50V
C525	1-126-960-11	ELECT	1uF	20%	50V
C526	1-162-294-31	CERAMIC	0.001uF	10%	50V
C527	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CN501	1-568-858-11	SOCKET, CONNECTOR 15P			
		< DIODE >			
D548	8-719-033-06	DIODE SEL5920A (CLIP A)			
D549	8-719-033-06	DIODE SEL5920A (CLIP B)			
D550	8-719-811-44	DIODE TLO124 (ENTER/NEXT)			
D560	8-719-011-54	DIODE UZ-4.3BS-TA (SAF)			
D560	8-719-012-82	DIODE UZ-4.3BS-TP (EXCEPT SAF)			
D578	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)			
D580	8-719-812-44	DIODE TLO124 (EFFECT ON/OFF)			
D581	8-719-033-06	DIODE SEL5920A (GROOVE)			
D582	8-719-033-06	DIODE SEL5920A (CLIP C)			
D605	8-719-033-06	DIODE SEL5920A (CD)			
D615	8-719-033-06	DIODE SEL5920A (TUNER)			
D625	8-719-033-06	DIODE SEL5920A (TIMER)			

Ref. No.	Part No.	Description			Remark
		< FLUORESCENT INDICATOR >			
FL501	1-517-660-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC501	8-759-438-11	IC ASD042FGF-022-3B9			
IC502	8-759-332-18	IC GP1U27XB			
		< TRANSISTOR >			
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q507	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q510	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q520	8-729-422-57	TRANSISTOR UN4111			
Q521	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q522	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q530	8-729-422-57	TRANSISTOR UN4111			
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q603	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		< RESISTOR >			
R500	1-249-419-11	CARBON	1.5K	5%	1/4W F
R509	1-249-419-11	CARBON	1.5K	5%	1/4W F
R510	1-249-401-11	CARBON	47	5%	1/4W F
R511	1-249-403-11	CARBON	68	5%	1/4W F
R512	1-247-807-31	CARBON	100	5%	1/4W
R513	1-249-407-11	CARBON	150	5%	1/4W F
R514	1-249-407-11	CARBON	150	5%	1/4W F
R515	1-249-397-11	CARBON	22	5%	1/4W F
R516	1-249-417-11	CARBON	1K	5%	1/4W F
R517	1-249-415-11	CARBON	680	5%	1/4W F
R518	1-249-417-11	CARBON	1K	5%	1/4W F
R519	1-249-419-11	CARBON	1.5K	5%	1/4W F
R520	1-249-421-11	CARBON	2.2K	5%	1/4W F
R521	1-247-843-11	CARBON	3.3K	5%	1/4W
R522	1-249-427-11	CARBON	6.8K	5%	1/4W F
R523	1-249-431-11	CARBON	15K	5%	1/4W
R524	1-249-419-11	CARBON	1.5K	5%	1/4W F
R525	1-249-401-11	CARBON	47	5%	1/4W F
R526	1-249-403-11	CARBON	68	5%	1/4W F
R527	1-247-807-31	CARBON	100	5%	1/4W
R528	1-249-407-11	CARBON	150	5%	1/4W F
R529	1-249-407-11	CARBON	150	5%	1/4W F
R530	1-249-409-11	CARBON	220	5%	1/4W F
R531	1-249-419-11	CARBON	1.5K	5%	1/4W F
R532	1-249-401-11	CARBON	47	5%	1/4W F
R533	1-249-403-11	CARBON	68	5%	1/4W F
R534	1-247-807-31	CARBON	100	5%	1/4W
R535	1-249-407-11	CARBON	150	5%	1/4W F
R536	1-249-407-11	CARBON	150	5%	1/4W F
R537	1-249-409-11	CARBON	220	5%	1/4W F
R538	1-249-411-11	CARBON	330	5%	1/4W
R539	1-249-433-11	CARBON	22K	5%	1/4W

PANEL SENSOR TCB

Ref. No.	Part No.	Description			Remark
R540	1-249-429-11	CARBON	10K	5%	1/4W
R544	1-249-429-11	CARBON	10K	5%	1/4W
R545	1-249-421-11	CARBON	2.2K	5%	1/4W F
R546	1-249-429-11	CARBON	10K	5%	1/4W
R547	1-249-421-11	CARBON	2.2K	5%	1/4W F
R548	1-249-407-11	CARBON	150	5%	1/4W F
R549	1-249-407-11	CARBON	150	5%	1/4W F
R550	1-249-407-11	CARBON	150	5%	1/4W F
R557	1-247-807-31	CARBON	100	5%	1/4W
R558	1-247-807-31	CARBON	100	5%	1/4W
R559	1-247-807-31	CARBON	100	5%	1/4W
R560	1-247-807-31	CARBON	100	5%	1/4W
R561	1-247-807-31	CARBON	100	5%	1/4W
R562	1-247-807-31	CARBON	100	5%	1/4W
R563	1-249-441-11	CARBON	100K	5%	1/4W
R564	1-249-401-11	CARBON	47	5%	1/4W F
R565	1-249-429-11	CARBON	10K	5%	1/4W
R566	1-249-429-11	CARBON	10K	5%	1/4W
R567	1-249-429-11	CARBON	10K	5%	1/4W
R568	1-249-429-11	CARBON	10K	5%	1/4W
R569	1-249-429-11	CARBON	10K	5%	1/4W
R570	1-249-441-11	CARBON	100K	5%	1/4W
R571	1-249-429-11	CARBON	10K	5%	1/4W
R572	1-249-429-11	CARBON	10K	5%	1/4W
R573	1-249-429-11	CARBON	10K	5%	1/4W
R574	1-249-429-11	CARBON	10K	5%	1/4W
R576	1-249-429-11	CARBON	10K	5%	1/4W
R577	1-247-903-00	CARBON	1M	5%	1/4W
R578	1-249-401-11	CARBON	47	5%	1/4W F
R580	1-249-407-11	CARBON	150	5%	1/4W F
R581	1-247-807-31	CARBON	100	5%	1/4W
R582	1-249-407-11	CARBON	150	5%	1/4W F
R585	1-249-421-11	CARBON	2.2K	5%	1/4W F
R586	1-247-807-31	CARBON	100	5%	1/4W
R587	1-247-807-31	CARBON	100	5%	1/4W
R588	1-247-807-31	CARBON	100	5%	1/4W
R605	1-247-807-31	CARBON	100	5%	1/4W
R615	1-247-807-31	CARBON	100	5%	1/4W
R625	1-247-807-31	CARBON	100	5%	1/4W
R631	1-249-417-11	CARBON	1K	5%	1/4W F
R632	1-249-417-11	CARBON	1K	5%	1/4W F
R633	1-249-417-11	CARBON	1K	5%	1/4W F
		< SWITCH >			
S509	1-762-196-21	SWITCH, TACT (TIMER)			
S510	1-762-196-21	SWITCH, TACT (DISPLAY)			
S511	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (1))			
S512	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (2))			
S513	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (3))			
S514	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (4))			
S516	1-762-196-21	SWITCH, TACT (ENTER/NEXT)			
S517	1-762-196-21	SWITCH, TACT (DBFB)			
S518	1-762-196-21	SWITCH, TACT (CLIP C)			
S519	1-762-196-21	SWITCH, TACT (CLIP B)			
S520	1-762-196-21	SWITCH, TACT (CLIP A)			
S521	1-762-196-21	SWITCH, TACT (CLIP ERASE)			
S522	1-762-196-21	SWITCH, TACT (CLIP PLAY)			
S523	1-762-196-21	SWITCH, TACT (DOLBY NR)			

Ref. No.	Part No.	Description			Remark
S524	1-762-196-21	SWITCH, TACT (MENU 1)			
S525	1-762-196-21	SWITCH, TACT (MENU 2)			
S526	1-762-196-21	SWITCH, TACT (MENU 3)			
S528	1-762-196-21	SWITCH, TACT (P FILE)			
S529	1-762-196-21	SWITCH, TACT (EFFECT ON/OFF)			
S530	1-762-196-21	SWITCH, TACT (SURROUND)			
S531	1-762-196-21	SWITCH, TACT (EQ EDIT)			
S532	1-762-196-21	SWITCH, TACT (<, ⏮, –)			
S533	1-762-196-21	SWITCH, TACT (∧)			
S534	1-762-196-21	SWITCH, TACT (>, ⏭, +)			
S535	1-762-196-21	SWITCH, TACT (∨)			
S536	1-762-196-21	SWITCH, TACT (TUNER/BAND)			
S537	1-762-196-21	SWITCH, TACT (FUNCTION)			
S538	1-762-196-21	SWITCH, TACT (GROOVE)			
S550	1-467-869-11	ENCODER, ROTARY (VOLUME)			
		< VIBRATOR >			
X501	1-760-489-11	VIBRATOR, CERAMIC (5MHz)			
**********					
*	1-658-576-11	SENSOR BOARD			
		**********			
		< IC >			
IC702	8-749-924-18	PH OTO INTERRUPTER RPI-1391			
IC703	8-749-924-30	PH OTO REFLECTOR GP2S28			
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5%	1/4W F
R702	1-249-407-11	CARBON	150	5%	1/4W F
**********					
*	A-4303-514-A	TCB BOARD, COMPLETE (AEP,UK)			
		**********			
*	A-4303-515-A	TCB BOARD, COMPLETE (G)			
		**********			
*	A-4303-516-A	TCB BOARD, COMPLETE (EE)			
		**********			
		< CAPACITOR >			
C1	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C2	1-126-967-11	ELECT	47uF	20%	16V
C3	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C5	1-163-031-11	CERAMIC CHIP	0,01uF		50V
C6	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C7	1-101-004-00	CERAMIC	0.01uF		50V (EE)
C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C11	1-216-295-91	CONDUCTOR, CHIP (2012)(G)			
C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V (AEP,UK,EE)
C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C23	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description			Remark
C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C26	1-126-967-11	ELECT	47uF	20%	16V
C28	1-126-967-11	ELECT	47uF	20%	16V
C29	1-162-306-11	CERAMIC	0.01uF	30%	16V
C30	1-126-961-11	ELECT	2.2uF	20%	100V
C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C34	1-163-091-00	CERAMIC CHIP	8PF		50V (G)
C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V (AEP,UK,EE)
C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C47	1-126-967-11	ELECT	47uF	20%	16V
C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C49	1-126-959-11	ELECT	0.47uF	20%	50V
C50	1-126-960-11	ELECT	1.0uF	20%	50V
C51	1-126-960-11	ELECT	1.0uF	20%	50V
C52	1-126-963-11	ELECT	4.7uF	20%	50V (AEP, UK, G)
C52	1-126-964-11	ELECT	10uF	20%	50V (EE)
C53	1-126-964-11	ELECT	10uF	20%	50V
C54	1-104-396-11	ELECT	10uF	20%	16V
C55	1-104-396-11	ELECT	10uF	20%	16V
C56	1-104-396-11	ELECT	10uF	20%	16V
C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C59	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V (AEP,UK,G)
C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)
C60	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V (AEP,UK,G)
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)
C61	1-126-301-11	ELECT	1uF	20%	50V
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C63	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C64	1-126-967-11	ELECT	47uF	20%	16V
C65	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C66	1-126-162-11	ELECT	3.3uF	20%	50V
C67	1-126-933-11	ELECT	100uF	20%	10V
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V
C71	1-162-306-11	CERAMIC	0.01uF	30%	16V
C72	1-126-967-11	ELECT	47uF	20%	16V
C120	1-163-105-00	CERAMIC CHIP	33PF	5%	50V (AEP,UK,G)
		< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC			
CF2	1-760-393-11	FILTER, CERAMIC (AEP,UK,G)			
CF3	1-567-389-11	FILTER, CERAMIC (EE)			
CF3	1-760-393-11	FILTER, CERAMIC (AEP,UK,G)			
		< CONNECTOR >			
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P			
		< DIODE >			
D21	8-719-976-99	DIODE UDZ-TE-17-5.1B			
D41	8-719-016-74	DIODE 1SS352-TPH3			
		< FRONT-END >			
FE1	1-233-542-11	FRONT END (4 GANG)(AEP,UK,G)			
FE1	1-693-335-11	FRONT END (3 GANG)(EE)			
FE2	1-233-514-11	ENCAPSULATED COMPONENT (AEP,UK,EE)			
FE2	1-239-260-11	ENCAPSULATED COMPONENT (G)			
		< IC >			
IC21	8-759-288-54	IC LC72130			
IC41	8-759-176-03	IC LA1835			
		< IFT >			
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)			
		< JUMPER RESISTOR >			
JR1	1-216-295-11	METAL CHIP	0	5%	1/10W (G)
JR2	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,EE)
JR3	1-216-295-11	METAL CHIP	0	5%	1/10W (G)
JR6	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,G)
JR7	1-216-295-11	METAL CHIP	0	5%	1/10W (G)
JR8	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,EE)
JR9	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,EE)
JR45	1-216-295-11	METAL CHIP	0	5%	1/10W
JR46	1-216-296-11	METAL CHIP	0	5%	1/8W
JR47	1-216-295-11	METAL CHIP	0	5%	1/10W
JR48	1-216-295-11	METAL CHIP	0	5%	1/10W
JR49	1-216-296-11	METAL CHIP	0	5%	1/8W
JR51	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,EE)
JR52	1-216-295-11	METAL CHIP	0	5%	1/10W
JR53	1-216-296-11	METAL CHIP	0	5%	1/8W (AEP,UK,EE)
JR54	1-216-295-11	METAL CHIP	0	5%	1/10W
		< JUMPER RESISTOR >			
JW4	1-249-413-11	CARBON	470	5%	1/4W (AEP,UK,G)
JW5	1-249-413-11	CARBON	470	5%	1/4W (AEP,UK,G)
		< COIL >			
L2	1-414-142-11	MICRO INDUCTOR 1uH (AEP,UK,G)			
L3	1-410-521-11	MICRO INDUCTOR 100uH			

TCB TRANSFORMER

Ref. No.	Part No.	Description			Remark
L4	1-410-515-11	INDUCTOR 33uH (AEP,UK,G)			
L41	1-407-500-00	MICRO INDUCTOR 4.7mH (AEP,UK,EE)			
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH (G)			
		< FILTER >			
LPF41	1-239-845-11	FILTER, LOW PASS			
LPF42	1-239-845-11	FILTER, LOW PASS			
		< TRANSISTOR >			
Q1	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q2	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q3	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q4	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q5	8-729-424-08	TRANSISTOR UN2111			
Q9	8-729-216-22	TRANSISTOR 2SA812-M5M6 (AEP,UK,EE)			
Q11	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)			
Q12	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)			
Q13	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)			
Q14	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)			
		< RESISTOR >			
R1	1-249-401-11	CARBON	47	5%	1/4W F
R2	1-216-037-00	METAL CHIP	330	5%	1/10W
R3	1-216-037-00	METAL CHIP	330	5%	1/10W
R5	1-216-037-00	METAL CHIP	330	5%	1/10W
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W
R7	1-216-037-00	METAL CHIP	330	5%	1/10W
R8	1-216-037-00	METAL CHIP	330	5%	1/10W
R9	1-216-081-00	METAL CHIP	22K	5%	1/10W
R10	1-216-037-00	METAL CHIP	330	5%	1/10W
R11	1-216-081-00	METAL CHIP	22K	5%	1/10W
R12	1-216-037-00	METAL CHIP	330	5%	1/10W
R13	1-216-037-00	METAL CHIP	330	5%	1/10W
R14	1-216-081-00	METAL CHIP	22K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP,UK,EE)
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP,UK,EE)
R21	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R22	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R23	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R24	1-216-025-91	METAL CHIP	100	5%	1/10W
R25	1-249-417-11	CARBON	1K	5%	1/4W F
R26	1-249-437-11	CARBON	47K	5%	1/4W
R27	1-249-429-11	CARBON	10K	5%	1/4W
R28	1-249-417-11	CARBON	1K	5%	1/4W F
R29	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R30	1-216-186-00	METAL CHIP	330	5%	1/8W
R31	1-216-025-91	METAL CHIP	100	5%	1/10W
R32	1-249-425-11	CARBON	4.7K	5%	1/4W F
R33	1-249-425-11	CARBON	4.7K	5%	1/4W F
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R35	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R36	1-216-025-91	METAL CHIP	100	5%	1/10W
R37	1-216-073-00	METAL CHIP	10K	5%	1/10W
R38	1-216-089-91	METAL CHIP	47K	5%	1/10W
R39	1-249-429-11	CARBON	10K	5%	1/4W
R42	1-216-073-00	METAL CHIP	10K	5%	1/10W
R43	1-216-042-00	METAL CHIP	510	5%	1/10W
R44	1-216-013-00	METAL CHIP	33	5%	1/10W
R45	1-247-843-11	CARBON	3.3K	5%	1/4W F
R46	1-216-073-00	METAL CHIP	10K	5%	1/10W
R47	1-216-097-91	METAL CHIP	100K	5%	1/10W
R48	1-249-417-11	CARBON	1K	5%	1/4W F
R49	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R50	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R51	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R53	1-249-429-11	CARBON	10K	5%	1/4W
R55	1-216-162-00	METAL CHIP	33	5%	1/8W
R56	1-249-393-11	CARBON	10	5%	1/4W F
R91	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,EE)
R92	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP,UK,EE)
R99	1-249-399-11	CARBON	33	5%	1/4W
		< VARIABLE RESISTOR >			
RV41	1-238-601-11	RES, ADJ, CARBON 22K			
RV42	1-238-600-11	RES, ADJ, CARBON 10K			
		< TERMINAL >			
TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)			
		< VIBRATOR >			
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)			
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)			
X42	1-527-981-00	FILTER, CERAMIC (450KHz)			
X43	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)			
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*	1-664-649-11	TRANSFORMER BOARD			
		**********			
	1-533-233-21	HOLDER, FUSE			
		< CONNECTOR >			
CN1601	1-564-321-00	PIN, CONNECTOR 2P			
CN1602	1-691-771-11	PLUG (MICRO CONNECTOR) 9P			
		< FUSE >			
⚠F1601	1-532-504-31	FUSE, TIME-LAG (4A/250V)			(GR3/RX30:AEP,UK,G,EE)
⚠F1601	1-533-420-11	FUSE, GLASS CYLINDRICAL(DIA.5)(5A/125V)			(RX30:US,CND)
⚠F1602	1-532-504-31	FUSE, TIME-LAG (4A/250V)			(GR3/RX30:AEP,UK,G,EE)
⚠F1602	1-533-420-11	FUSE, GLASS CYLINDRICAL(DIA.5)(5A/125V)			(RX30:US,CND)
		< RESISTOR >			
⚠R1600	1-202-725-00	SOLID	3.3M	10%	1/2W (RX30:US,CND)
⚠R1601	1-217-637-00	FUSIBLE	1	5%	1/4W F
⚠R1602	1-219-121-11	FUSIBLE	0.22	5%	1/4W F
⚠R1603	1-219-121-11	FUSIBLE	0.22	5%	1/4W F

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
⚠S1601	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(GR3:E,AR)	
		< TRANSFORMER >	
⚠T1001	1-431-127-11	TRANSFORMER, POWER (GR3)	
⚠T1001	1-431-128-11	TRANSFORMER, POWER (RX30:US,CND)	
⚠T1001	1-431-129-11	TRANSFORMER, POWER (RX30:AEP,UK,G,EE)	
**********			
		MISCELLANEOUS	
		**********	
2	1-233-544-11	ENCAPSULATED COMPONENT (RX30:US,CND)	
2	1-233-545-11	ENCAPSULATED COMPONENT (GR3:EXCEPT SAF)	
2	1-233-546-11	ENCAPSULATED COMPONENT (GR3:SAF)	
3	1-769-977-11	WIRE (FLAT TYPE)(13 CORE)(GR3:SAF)	
3	1-782-079-11	WIRE (FLAT TYPE)(13 CORE) (GR3:EXCEPT SAF/RX30:US,CND)	
3	1-782-081-11	WIRE (FLAT TYPE)(15 CORE)(RX30:AEP,UK,G,EE)	
6	1-773-020-11	WIRE (FLAT TYPE)(15 CORE)(SAF)	
6	1-782-082-11	WIRE (FLAT TYPE)(15 CORE)(EXCEPT SAF)	
7	1-776-240-11	WIRE (FLAT TYPE)(19 CORE)	
257	1-452-538-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
⚠301	8-848-367-11	OPTICAL PICK-UP KSS-213B/K-N	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
451	1-500-322-11	HEAD, WIRE (E)	
453	1-500-319-11	HEAD, HOLDER (DECK B)	
455	1-500-320-11	HEAD, WIRE R/P (DECK B)	
456	1-500-321-11	HEAD, WIRE P.B (DECK A)	
514	1-762-610-11	SWITCH, PLATE	
515	1-762-613-11	SWITCH, WIRE LEAF	
516	1-762-612-11	SWITCH, WIRE LEAF	
⚠CNP1601	1-782-315-11	CORD, POWER (E,MX)	
⚠CNP1601	1-690-608-11	CORD, POWER (AUS)	
⚠CNP1601	1-690-609-21	CORD, POWER (CND)	
⚠CNP1601	1-777-070-11	CORD, POWER (US)	
⚠CNP1601	1-777-071-11	CORD, POWER (AEP,G,EE,AR)	
⚠CNP1601	1-575-651-11	CORD, POWER (SAF)	
⚠CNP1601	1-777-512-11	CORD, POWER (UK)	
FL501	1-517-660-11	INDICATOR TUBE, FLUORESCENT	
HE901	1-500-318-11	HEAD, E (ERASE)(DECK B)	
HP901	1-543-424-21	HEAD (PLAYBACK)(DECK A)	
HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK)(DECK B)	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
M901	X-3372-231-1	MOTOR ASSY (REEL/CAPSTAN)	
S1	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK A)	
S2	1-571-745-11	SWITCH, LEAF (PLAY)(DECK A)	
S3	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK A)	
S4	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK B)	
S5	1-571-745-11	SWITCH, LEAF (PLAY)(DECK B)	
S6	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK B)	
S7	1-571-556-11	SWITCH, LEAF (REC)(DECK B)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
⚠T1001	1-431-127-11	TRANSFORMER, POWER (GR3)	
⚠T1001	1-431-128-11	TRANSFORMER, POWER (RX30:US,CND)	
⚠T1001	1-431-129-11	TRANSFORMER, POWER (RX30:AEP,UK,G,EE)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-501-374-11	ANTENNA, LOOP (SAF)	
	1-501-659-11	ANTENNA (FM)(SAF)	
	3-859-826-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH)(SAF)	
	4-979-371-01	COVER, BATTERY (for RM-SD25)	
	8-917-538-90	REMOCON RM-SD25//M SET (SAF)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#4	7-685-791-09	SCREW +PTT 2.6X5 (S)	
#5	7-621-255-15	SCREW +P 2X3	
#6	7-685-782-01	SCREW +PTT 2X5 (S)	
#7	7-621-773-86	SCRTEWTOTSU PTTWH 2.6X4	
#8	7-685-781-09	SCREW +PTT 2X4 (S)	
#9	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
#10	7-621-775-10	SCREW +B 2.6X4	

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Sony Corporation
Home A&V Products Company

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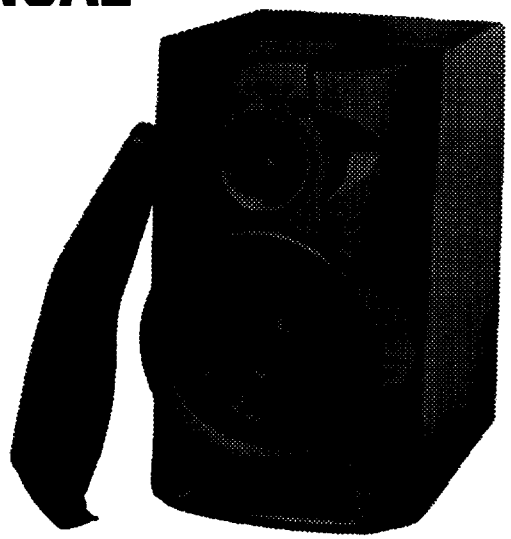
SS-L50/L50H

SERVICE MANUAL



US Model
Canadian Model
AEP Model
UK Model
SS-L50
E Model
SS-L50/L50H
Australian Model
Tourist Model
SS-L50H

SS-L50 and SS-L50H are the speaker systems in MHC-GR3,MHC-GR5,MHC-RX30 and MHC-RX50.

Photo: SS-L50

SPECIFICATION

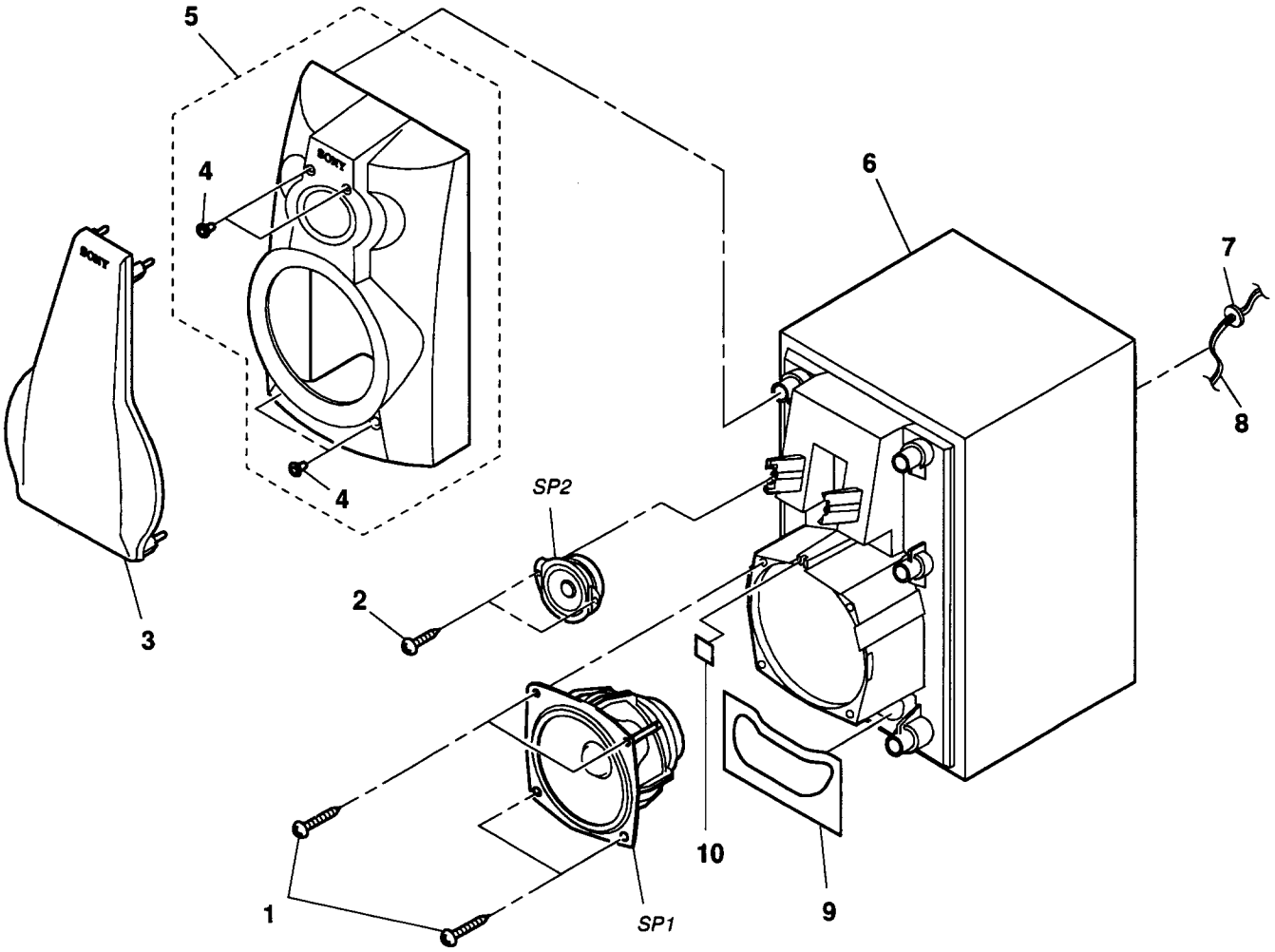
Speaker System:	2-way, 2-unit bass-reflex type
Speaker Units:	Woofer : 15cm, cone type
	Tweeter : 5cm, cone type
Normal Impedances:	6 ohms
Dimensions:	Approx. 195 x 330 x 315 mm (w/h/d)
Mass:	Approx. 4kg net per speaker.

Design and specifications subject to change without notice.

SPEAKER SYSTEM

MICROFILM

SONY®


5
4
6
7
8
4
SP2
2
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10
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SP1
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